

CANADIANA  
C2  
JUN 16 1986




---

# Alberta's Reserves of crude oil, oil sands, gas, natural gas liquids, and sulphur

---

At December 31

**1985**



Digitized by the Internet Archive  
in 2015

<https://archive.org/details/albertasreserves25>





---

# **Alberta's Reserves of crude oil, oil sands, gas, natural gas liquids, and sulphur**

---

**At December 31  
1985**

## **ENERGY RESOURCES CONSERVATION BOARD RESERVE REPORT SERIES ERCB-18**

Related reserve reports and maps:

ST 85-31\* Reserves of Coal, Province of Alberta

ST 85-32\* Alberta's Energy Resources, A Summary

ST 85-35\* Alberta Reserves of Gas, Complete Listing

86-40 Energy Alberta 1985

ST 85-38 Atlas of Alberta's Crude Bitumen Reserves

81-E Alberta's Hydroelectric Energy Resources

83-E Alberta's Crude-Oil Supply Forecast, 1983-2000

85-A Alberta Oil Supply, 1985-2010

---

\* 1986 editions pending

ISSN 0706-3199

Twenty-fifth edition

Published by:

Energy Resources Conservation Board  
640 Fifth Avenue SW  
Calgary, Alberta  
T2P 3G4

Telephone (403) 297-8311

Telex 03-821717

Price: \$50

---

## HIGHLIGHTS

---

| RESERVES                                      | 1985   | 1984   | Change |
|---|--------|--------|--------|
| Conventional crude oil                        |        |        |        |
| Remaining established ( $10^6 \text{ m}^3$ )  | 648    | 641    | + 7    |
| Initial established ( $10^6 \text{ m}^3$ )    | 2 123  | 2 059  | +64    |
| Synthetic crude oil (Developed) <sup>a</sup>  |        |        |        |
| Remaining established ( $10^6 \text{ m}^3$ )  | 226    | 218    | + 8    |
| Initial established ( $10^6 \text{ m}^3$ )    | 310    | 291    | +19    |
| Natural gas <sup>b</sup>                      |        |        |        |
| Remaining established                         |        |        |        |
| Volume ( $10^{12} \text{ m}^3$ )              | 1.77   | 1.80   | -0.03  |
| Energy ( $10^{18} \text{ J}$ )                | 68.81  | 70.02  | -1.21  |
| Initial established                           |        |        |        |
| Volume ( $10^{12} \text{ m}^3$ )              | 3.00   | 2.96   | +0.04  |
| Energy ( $10^{18} \text{ J}$ )                | 116.94 | 115.34 | +1.60  |
| PRODUCTION                                    |        |        |        |
| Conventional crude oil ( $10^6 \text{ m}^3$ ) | 56.0   | 59.0   | -3.0   |
| Synthetic crude oil ( $10^6 \text{ m}^3$ )    | 7.0    | 6.0    | +1.6   |
| Natural gas <sup>c</sup>                      |        |        |        |
| Volumes ( $10^9 \text{ m}^3$ )                | 72.8   | 68.3   | +4.5   |

---

<sup>a</sup> Reserves associated with commercial oil sands mining projects.

<sup>b</sup> Volumes are on an actual heating value basis.

<sup>c</sup> The official net production of natural gas is reported in ERCB ST 86-17 (see chapter 4, section 4.7 of this report).





---

## CONTENTS

---

| CHAPTER  | page       |
|--|------------|
| 1 Terminology  | 1-1        |
| 2 Reserves of Conventional Crude Oil                                       | 2-1        |
| 3 Reserves of Crude Bitumen and Synthetic Crude Oil                        | 3-1        |
| 4 Reserves of Gas  | 4-1        |
| 5 Ethane Content of Gas  | 5-1        |
| 6 Reserves of Natural Gas Liquids  | 6-1        |
| 7 Reserves of Sulphur  | 7-1        |
| 8 Ultimate Potential   | 8-1        |
| <b>APPENDIX</b>  | <b>A-1</b> |
| Oil, Crude Bitumen, and Gas Drilling and Reserve Growth<br>Historical Data |            |

# CONTENTS

## CHAPTER

PAGE

|   |                                  |   |
|---|----------------------------------|---|
| 1 | Introduction                     | 1 |
| 2 | History of the American People   | 2 |
| 3 | Geography of the American People | 3 |
| 4 | History of the American People   | 4 |
| 5 | History of the American People   | 5 |
| 6 | History of the American People   | 6 |
| 7 | History of the American People   | 7 |
| 8 | History of the American People   | 8 |
| 9 | History of the American People   | 9 |

## APPENDIX

The American People and the American People



---

**TABLES AND FIGURES**


---

| <b>Tables</b>   | <b>page</b> |
|---|-------------|
| 2-1 Summary of Reserves of Conventional Crude Oil Attributable to Various Recovery Mechanisms | 2-4         |
| 2-2 Summary of Reserves of Conventional Crude Oil by Geological Period and Crude Oil Type     | 2-5         |
| 2-3 Geological Distribution of Reserves of Conventional Crude Oil                             | 2-6         |
| 2-4 Reserves of Conventional Crude Oil and Basic Data   | 2-1 (table) |
| 3-1 Reserves of Crude Bitumen and Basic Data  | 3-1 (table) |
| 4-1 Major Gas Reserve Changes 1985  | 4-5         |
| 4-2 Reserves of Gas-Cycling Pools Calculated on an Energy Basis                               | 4-6         |
| 4-3 Distribution of Established Reserves of Gas by Geological Period                          | 4-7         |
| 4-4 Reserves of Multi-field Pools   | 4-9         |
| 4-5 Reserves of Gas and Basic Data  | 4-1 (table) |
| 5-1 Ethane in the Remaining Established Reserves of Gas                                       | 5-2         |
| 6-1 Remaining Established Reserves of Natural Gas Liquids                                     | 6-3         |
| 7-1 Remaining Established Reserves of Sulphur   | 7-3         |
| 8-1 Summary of Initial and Remaining Established Reserves of Conventional Crude Oil           | 8-2         |
| 8-2 Summary of Initial and Remaining Established Reserves of Marketable Gas                   | 8-6         |
| A-1 Development and Exploratory Wells Number Drilled Annually, 1951-1985                      | A-2         |
| A-2 Development and Exploratory Wells Kilometres Drilled Annually, 1951-1985                  | A-4         |
| A-3 Completed and Capped Wells Cumulative Totals, 1951-1985                                   | A-7         |
| A-4 Additions to Established Reserves of Conventional Crude Oil, 1951-1985                    | A-9         |
| A-5 Additions to Established Reserves of Marketable Gas, 1951-1985                            | A-11        |

**Figures**

|   |     |
|---|-----|
| 3-1 Crude Bitumen Reserve Categories Within the Surface-mineable Boundary     | 3-3 |
| 8-1 Forecast Growth of Initial Established Reserves of Conventional Crude Oil | 8-3 |
| 8-2 Forecast Growth of Initial Established Reserves of Marketable Gas         | 8-7 |



---

## PREFACE

---

This is the principal report of the Energy Resources Conservation Board on Alberta's reserves of conventional crude oil, bitumen, synthetic crude oil, gas, natural gas liquids, and sulphur; and includes estimates of initial and remaining established reserves and ultimate potential. It is updated annually from the Board's records, and this edition reflects changes that have occurred to the end of 1985. The information in Tables 2-4 and 4-5 and more detailed information on the reserves of gas pools are available on magnetic tape. The gas-reserve details will be also available in a 4-volume report in photoreduced form (ERCB ST 86-35).

General enquiries respecting this report should be directed to L. A. Samson. Enquiries respecting specific sections should be directed as follows:

| <b>Chapter</b> | <b>Co-ordinators, Department</b> |          |
|----------------|----------------------------------|----------|
| 1, 4, 8, and 9 | L. A. Samson, Gas . . . . .      | 297-8493 |
| 2              | V. Oancia, Oil . . . . .         | 297-8566 |
| 3              | W. A. Mayer, Oil Sands . . . . . | 297-2883 |
| 5, 6, and 7    | H. L. Longworth, Gas . . . . .   | 297-8502 |

The Board gratefully acknowledges the work of these staff and many others in preparing this report.











---

# 1 TERMINOLOGY

---

## 1.1 SI UNITS

Alberta's Reserves of Crude Oil, Oil Sands, Gas, Natural Gas Liquids, and Sulphur are presented in the International System of Units (SI). The provincial totals and a few other major totals are shown in both SI units and the imperial equivalents in the various tables.

Conversion factors used in calculating the imperial equivalents are listed below:

|   |   |
|---|---|
| 1 cubic metre of gas<br>(101.325 kilopascals and 15° Celsius)                   | = 35.493 73 cubic feet<br>(14.65 psia and 60° Fahrenheit)   |
| 1 cubic metre of ethane<br>(equilibrium pressure and 15° Celsius)               | = 6.33 Canadian barrels of ethane<br>(equilibrium pressure and 60° Fahrenheit)                              |
| 1 cubic metre of ethane gas<br>(101.325 kilopascals and 15° Celsius)            | = 0.003 55 cubic metres of ethane liquid  |
| 1 cubic metre of butanes<br>(equilibrium pressure and 15° Celsius)              | = 6.296 8 Canadian barrels of butanes<br>(equilibrium pressure and 60° Fahrenheit)                          |
| 1 cubic metre of propane<br>(equilibrium pressure and 15° Celsius)              | = 6.300 0 Canadian barrels of propane<br>(equilibrium pressure and 60° Fahrenheit)                          |
| 1 cubic metre of oil or pentanes plus<br>(equilibrium pressure and 15° Celsius) | = 6.292 9 Canadian barrels<br>(equilibrium pressure and 60° Fahrenheit)                                     |
| 1 cubic metre of water<br>(equilibrium pressure and 15° Celsius)                | = 6.290 1 Canadian barrels<br>(equilibrium pressure and 60° Fahrenheit)                                     |
| 1 tonne   | = 0.984 206 4 (U.K.) long tons (2240 pounds)  |
| 1 tonne   | = 1.102 311 short tons (2000 pounds)  |
| 1 kilojoule   | = 0.948 213 3 British thermal units (Btu as defined in the federal Gas Inspection Act (60°-61° Fahrenheit)) |

## 1.2 RESERVES TERMINOLOGY

The reserves terminology used in this report applies to all fossil energy resources (including coal) and is as follows:

- 1 **Initial Volume in Place:** The gross volume of crude oil, crude bitumen, or raw natural gas calculated or interpreted to exist in a reservoir before any volume has been produced.
- 2 **Established Reserves:** Those reserves recoverable under current technology and present and anticipated economic conditions, specifically proved by drilling, testing, or production; plus that judgement portion of contiguous recoverable reserves that are interpreted from geological, geophysical, or similar information, with reasonable certainty to exist.
- 3 **Initial Established Reserves:** Established reserves prior to the deduction of any production.
- 4 **Remaining Established Reserves:** Initial established reserves less cumulative production.
- 5 **Ultimate Potential:** An estimate of the initial established reserves that will have been developed in an area by the time all exploratory and development activity has ceased, having regard for the geological prospects of that area and anticipated technology and economic conditions.

Ultimate potential includes cumulative production, remaining established reserves, and future additions through extensions and revisions to existing pools and the discovery of new pools. Ultimate potential can be expressed by the following simple formula:

Ultimate potential = initial established reserves  
 + additions to existing pools  
 + future discoveries.

The above terminology and definitions, which were recommended by the Inter-Provincial Advisory Committee on Energy, have been adopted by the Board.

### 1.3 DEFINITIONS OF OTHER TERMS

|                                 |   |
|---------------------------------|---|
| <b>Area</b>                     | The area used to determine the bulk rock volume of the oil-, crude bitumen-, or gas-bearing reservoir, usually the area of the zero isopach or the assigned area of a pool, zone, or deposit.   |
| <b>Butanes</b>                  | In addition to its normal scientific meaning, a mixture mainly of butanes which ordinarily may contain some propane or pentanes plus.<br><br>(Oil and Gas Conservation Act, section 1(1)(c.1))  |
| <b>Compressibility Factor</b>   | A correction factor for non-ideal gas determined for gas from a pool at its initial reservoir pressure and temperature and, where necessary, including factors developed by Robinson et al <sup>1</sup> or Wichert and Aziz <sup>2</sup> .  |
| <b>Condensate</b>               | A mixture mainly of pentanes and heavier hydrocarbons that may be contaminated with sulphur compounds, that is recovered or recoverable through a well from an underground reservoir and that may be gaseous in its virgin reservoir state but is liquid at the conditions under which its volume is measured or estimated.<br><br>(Oil and Gas Conservation Act, section 1(1)(d.1))  |
| <b>Crude Bitumen</b>            | A naturally occurring viscous mixture, mainly of hydrocarbons heavier than pentane, that may contain sulphur compounds and that, in its naturally occurring viscous state, will not flow to a well.<br><br>(Oil Sands Conservation Act, section 1(1)(c))  |
| <b>Crude Oil (Conventional)</b> | A mixture mainly of pentanes and heavier hydro-carbons that may be contaminated with sulphur compounds, that is recovered or is recoverable at a well from an underground reservoir, and that is liquid at the conditions under which its volume is measured or estimated, and includes all other hydro-carbon mixtures so recovered or recoverable except raw gas or condensate.<br><br>(Oil and Gas Conservation Act, section 1(1)(f.1))      |
| <b>Crude Oil (Heavy)</b>        | Crude oil will be deemed to be heavy crude oil if it has a density of 900 kg/m <sup>3</sup> or more, but the Board, in a particular case, may classify crude oil other-wise than in accordance with this criterion, having regard to its market utilization and purchasers' classification.<br><br>(Oil and Gas Conservation Regulation 10.030)   |
| <b>Crude Oil (Light-medium)</b> | Crude oil will be deemed to be light-medium crude oil if it has a density of less than 900 kg/m <sup>3</sup> , but the Board in a particular case, may classify crude oil otherwise than in accordance with this criterion, having regard to its market utilization and purchasers' classification. The light-medium classification is synonymous with the light classification referred to in ERCB Report 85-A, Alberta Oil Supply, 1985-2010. |

<sup>1</sup> Robinson, D. B., C. A. Macrygeorgos, and G. W. Govier, 1960. The Volumetric Behaviour of Natural Gases Containing Hydrogen Sulphide and Carbon Dioxide. Trans, AIME, 219, 54.

<sup>2</sup> Wichert, E. and K. Aziz, 1972. Calculate Z's for Sour Gases. Hydrocarbon Processing, 51, 119-122.

|   |   |
|---|---|
| <b>Crude Oil<br/>(Synthetic)</b>                              | <p>A mixture, mainly of pentanes and heavier hydro-carbons, that may contain sulphur compounds, that is derived from crude bitumen and that is liquid at the conditions under which its volume is measured or estimated, and includes all other hydrocarbon mixtures so derived.</p> <p>(Oil and Gas Conservation Act, section 1(1)(t.1))</p>   |
| <b>Density</b>  | The mass or amount of matter per unit volume.   |
| <b>Density, Relative<br/>(Raw Gas)</b>                        | The density, relative to air, of raw gas upon discovery, determined by an analysis of a gas sample representative of a pool under atmospheric conditions.   |
| <b>Discovery Year</b>   | The year in which commercial quantities of oil or gas in a pool or zone were first recognized by the Board.   |
| <b>Ethane</b>   | <p>In addition to its normal scientific meaning, a mixture mainly of ethane which ordinarily may contain some methane or propane.</p> <p>(Oil and Gas Conservation Act, section 1(1)(h.1))</p>  |
| <b>Gas</b>  | <p>Raw gas or marketable gas or any constituent of raw gas, condensate, crude bitumen, or crude oil that is recovered in processing and that is gaseous at the conditions under which its volume is measured or estimated.</p> <p>(Oil and Gas Conservation Act, section 1(1)(j.1))</p>   |
| <b>Gas<br/>(Associated)</b>                                   | Gas in a free state in communication in a reservoir with crude oil, under initial reservoir conditions.   |
| <b>Gas<br/>(Marketable)</b>                                   | <p>A mixture mainly of methane originating from raw gas, if necessary through the processing of the raw gas for the removal or partial removal of some constituents, and which meets specifications for use as a domestic, commercial, or industrial fuel or as an industrial raw material.</p> <p>(Oil and Gas Conservation Act, section 1(1)(m))</p>  |
| <b>Gas<br/>(Marketable)<br/>(at 101.325 kPa<br/>and 15°C)</b> | The equivalent volume of marketable gas at standard conditions.   |
| <b>Gas<br/>(Non-associated)</b>                               | Gas that is not in communication in a reservoir with an accumulation of liquid hydrocarbons at initial reservoir conditions.  |
| <b>Gas<br/>(Raw)</b>  | <p>A mixture containing methane, other paraffinic hydrocarbons, nitrogen, carbon dioxide, hydrogen sulphide, helium, and minor impurities, or some of them, which is recovered or is recoverable at a well from an underground reservoir and which is gaseous at the conditions under which its volume is measured or estimated.</p> <p>(Oil and Gas Conservation Act, section 1(1)(s.1))</p> |
| <b>Gas<br/>(Solution)</b>                                     | Gas that is dissolved in crude oil under reservoir conditions and evolves as a result of pressure and temperature changes.  |
| <b>Gas-Oil Ratio<br/>(Initial Solution)</b>                   | The volume of gas - in cubic metres, measured under standard conditions - contained in one stock-tank cubic metre of oil under initial reservoir conditions.  |
| <b>Good Production<br/>Practice<br/>(GPP)</b>                 | <p>Production of crude oil or raw gas at a rate</p> <ul style="list-style-type: none"> <li>(i) not governed by a base allowable, but</li> <li>(ii) limited to what can be produced without adversely and significantly affecting conservation, the prevention of waste, or the opportunity of each owner in the pool to obtain his share of production.</li> </ul>                            |



(Oil and Gas Conservation Regulation 1.020(2)9)

This is a classification of pools used by the Board either to improve the economics of production and thus defer the abandonment of a pool, or to avoid unnecessary administrative expense associated with regulation or production restrictions where this serves little or no purpose.

|                                      |   |
|--------------------------------------|---|
| <b>Gross Heating Value</b>           | The heat liberated by burning moisture-free gas at standard conditions and condensing the water vapour to a liquid state.   |
| <b>Helium</b>                        | In addition to its normal scientific meaning, a mixture mainly of helium which ordinarily may contain some nitrogen and methane.<br><br>(Oil and Gas Conservation Act, section 1(1)(k))   |
| <b>Maximum Efficient Rate (MER)</b>  | The maximum efficient rate at which oil can be produced without avoidable underground waste.  |
| <b>Maximum Rate Limitation (MRL)</b> | The maximum rate of production prescribed for the avoidance of waste, after application of any applicable penalty factor.   |
| <b>Mean Formational Depth</b>        | The approximate depth below kelly bushing of the mid-point of an oil or gas productive zone for wells in a pool.  |
| <b>Methane</b>                       | In addition to its normal scientific meaning, a mixture mainly of methane which ordinarily may contain some ethane, nitrogen, helium, or carbon dioxide.<br><br>(Oil and Gas Conservation Act, section 1(1)(m.1))   |
| <b>Natural Gas Liquids</b>           | Propane, butanes, or pentanes plus, or a combination of them, obtained from the processing of raw gas or condensate.<br><br>(Oil and Gas Conservation Act, section 1(1)(n))   |
| <b>Oil</b>                           | Condensate or crude oil, or a constituent of raw gas, condensate, or crude oil that is recovered in processing, that is liquid at the conditions under which its volume is measured or estimated.<br><br>(Oil and Gas Conservation Act, section 1(1)(n.1))  |
| <b>Oil Sands</b>                     | (i) sands and other rock materials containing crude bitumen,<br>(ii) the crude bitumen contained in those sands and other rock materials, and<br>(iii) any other mineral substances, other than natural gas, in association with that crude bitumen or those sands and other rock materials referred to in subclauses (i) and (ii).<br><br>(Oil Sands Conservation Act, Section 1(1)(n)). |
| <b>Oil Sands Deposit</b>             | A natural reservoir containing or appearing to contain an accumulation of oil sands separated or appearing to be separated from any other such accumulation.<br><br>(Oil and Gas Conservation Act, section 1(1)(o.1))   |
| <b>Pay Thickness (Average)</b>       | The bulk rock volume of a reservoir of oil, oil sands, or gas, divided by the area.   |
| <b>Pentanes Plus</b>                 | A mixture mainly of pentanes and heavier hydrocarbons which ordinarily may contain some butanes and which is obtained from the processing of raw gas, condensate, or crude oil.<br><br>(Oil and Gas Conservation Act, section 1(1)(p))  |

|                            |   |
|----------------------------|---|
| <b>Pool</b>                | A natural underground reservoir containing or appearing to contain an accumulation of oil or gas or both separated or appearing to be separated from any other such accumulation.<br>(Oil and Gas Conservation Act, section 1(1)(q))  |
| <b>Porosity</b>            | The effective pore space of the rock volume determined from core analysis and well log data.  |
| <b>Pressure (Initial)</b>  | The reservoir pressure at the reference elevation of a pool upon discovery.   |
| <b>Propane</b>             | In addition to its normal scientific meaning, a mixture mainly of propane which ordinarily may contain some ethane or butanes.<br>(Oil and Gas Conservation Act, section 1(1)(s))   |
| <b>Recovery (Enhanced)</b> | Recovery of oil, gas, or natural gas liquids by the implementation of an artificially improved depletion process over a part or the whole of a pool, measured as a volume or fraction; the additional oil, gas, or natural gas liquids so recovered.<br>(Oil and Gas Conservation Act, section 1(1)(h)) |
| <b>Recovery (Pool)</b>     | In gas pools, the fraction of the in-place reserves of gas expected to be recovered under the subsisting recovery mechanism.  |
| <b>Recovery (Primary)</b>  | Recovery of oil by natural depletion processes only; measured as a volume or fraction of the oil so recovered.  |
| <b>Saturation (Gas)</b>    | A measure of the fraction of pore space in the rock occupied by gas upon discovery.   |
| <b>Saturation (Water)</b>  | A measure of the fraction of pore space in the rock occupied by water upon discovery.   |
| <b>Shrinkage Factor</b>    | The volume occupied by one cubic metre of oil from a pool, measured at standard conditions after flash gas liberation consistent with the surface separation process, as a ratio of the volume occupied by the same oil and gas at the pressure and temperature of a pool upon discovery.               |
| <b>Solvent</b>             | A suitable mixture of hydrocarbons ranging from methane to pentanes plus, but consisting largely of methane, ethane, propane, and butanes, for use in enhanced-recovery operations.   |
| <b>Surface Loss</b>        | The fraction of recoverable gas that is removed as acid gas and liquid hydrocarbons and used as lease or plant fuel, or flared.   |
| <b>Temperature</b>         | The initial reservoir temperature upon discovery at the reference elevation of a pool.  |
| <b>Zone</b>                | Any stratum or any sequence of strata that is designated by the Board as a zone.<br>(Oil and Gas Conservation Act, section 1(1)(z))   |

#### 1.4 STANDARD CONDITIONS OF GAS MEASUREMENT

Volumes of gas are given as at a standard pressure and temperature of 101.325 kPa and 15°C, respectively.

#### 1.5 SYMBOLS

The symbols used in tables throughout this report have the following meanings:

##### SI

|     |                |     |       |
|-----|----------------|-----|-------|
| °C  | degree Celsius | M   | mega  |
| d   | day            | m   | metre |
| ha  | hectare        | mol | mole  |
| J   | joule          | T   | tera  |
| kg  | kilogram       | t   | tonne |
| kPa | kilopascal     |     |       |

**Imperial**

|     |                      |      |                                 |
|-----|----------------------|------|---------------------------------|
| bbl | barrel               | psia | pounds per square inch absolute |
| Btu | British thermal unit | psig | pounds per square inch gauge    |
| cf  | cubic foot           | RF   | recovery                        |
| d   | day                  | stb  | stock-tank barrel               |
| °F  | degree Fahrenheit    |      |                                 |

**1.6 ABBREVIATIONS****General Report**

|     |                                   |
|-----|-----------------------------------|
| GIP | gas in place                      |
| GPP | good production practice          |
| MER | maximum efficient rate            |
| MRL | maximum rate limitation           |
| RGE | range                             |
| STP | standard temperature and pressure |
| TWP | township                          |
| WM  | west of a certain meridian        |

**Computer Printout**

General abbreviations, found chiefly in the computer printout, have the following meanings:

|                  |  |
|------------------|--|
| ABAND            | abandoned  |
| ASSOC            | associated gas   |
| ADMIN 2          | Administrative Area No. 2  |
| BER              | beyond economic reach  |
| BLAIR            | Blairmore  |
| BLSKY            | Bluesky  |
| BOW ISL or BI    | Bow Island   |
| BR               | Belly River  |
| BSL COLO         | Basal Colorado   |
| BSL MANN or BMNV | Basal Mannville  |
| BSL QTZ          | Basal Quartz   |
| CARD             | Cardium  |
| CDN              | Cadomin  |
| CLWTR            | Clearwater   |
| CLY              | Colony   |
| CMRS             | Camrose  |
| COMP             | compressibility  |
| DBLT             | Debolt   |
| DETR             | Detrital   |
| DISC YEAR        | discovery year   |
| ELK              | Elkton   |
| ELRSL            | Ellerslie  |
| ERSO             | enhanced-recovery scheme is in operation but no additional established reserves are attributed |
| FALH             | Falher   |
| FRAC             | fraction   |
| GEN PETE         | General Petroleum  |
| GETH             | Gething  |
| GLAUC            | Glauconitic  |

|                         |  |
|-------------------------|--|
| GOR                     | gas-oil ratio                                |
| GRD RAP                 | Grand Rapids                                 |
| GROSS HEAT VALUE        | Gross Heating Value                          |
| INJ                     | injected                                     |
| I.S.                    | integrated scheme                            |
| JUR or J                | Jurassic                                     |
| KEY                     | Keystone                                     |
| KISK                    | Kiskatinaw                                   |
| KR                      | Keg River                                    |
| L                       | lower  |
| LLOYD                   | Lloydminster                                 |
| LF                      | load factor                                  |
| LMNV or LM              | Lower Mannville                              |
| LOC EX PROJECT          | local experimental project                   |
| LOC U                   | local utility                                |
| M                       | middle                                       |
| MANN or MN              | Mannville                                    |
| MCM                     | McMurray                                     |
| MED HAT                 | Medicine Hat                                 |
| MILK RIV                | Milk River                                   |
| MOP                     | maximum operating pressure                   |
| MSKG                    | Muskeg                                       |
| NGL                     | natural gas liquids                          |
| NIS                     | Nisku  |
| NO.                     | number                                       |
| NON-ASSOC               | non-associated gas                           |
| OST                     | Ostracod                                     |
| RF                      | recovery factor                              |
| SA                      | strike area                                  |
| SATN                    | saturation                                   |
| SD                      | sandstone                                    |
| SE ALTA GAS<br>SYS (MU) | Southeastern Alberta Gas System - commingled |
| SG                      | gas saturation                               |
| SHUN                    | Shunda                                       |
| SL                      | surface loss                                 |
| SOLN                    | solution gas                                 |
| SPKY                    | Sparky                                       |
| ST. ED                  | St. Edouard                                  |
| SULPT                   | Sulphur Point                                |
| SUSP                    | suspended                                    |
| SW                      | water saturation                             |
| TEMP                    | temperature                                  |
| TVD                     | true vertical depth                          |
| U                       | upper  |
| UIRE                    | Upper Ireton                                 |
| UMNV or UM              | Upper Mannville                              |
| VIK or VK               | Viking                                       |
| VOL                     | volume                                       |
| WAB                     | Wabamun                                      |
| WBSK                    | Wabiskaw                                     |
| WTR DISP                | water disposal                               |
| WTR INJ                 | water injection                              |
| 1WS                     | First White Specks                           |
| 2WS                     | Second White Specks                          |



## Company Names

The following is a list of abbreviations which are used for certain company names:

|         |   |
|---------|---|
| A&S     | Alberta and Southern Gas Co. Ltd.   |
| BAROID  | Baroid of Canada, Limited   |
| BRL     | Brascan Resources Limited   |
| CANSALT | The Canadian Salt Company Limited   |
| CFB,CL  | Canadian Forces Base at Cold Lake   |
| CIL     | Canadian Industries Limited   |
| CMG     | Canadian-Montana Gas Company Limited  |
| CTYMEDH | City of Medicine Hat  |
| CNG     | Consolidated Natural Gas Limited  |
| CUE     | Canadian Utilities Ethane Limited   |
| CUL     | Canadian Utilities Limited  |
| CWNGNUL | Canadian Western Natural Gas Company Limited and Northwestern Utilities Limited |
| KANNGAZ | KannGaz Producers Ltd.  |
| MIP     | Many Islands Pipe Lines Ltd.  |
| NCO     | North Canadian Oils Limited   |
| NORCEN  | Norcen Energy Resources Limited   |
| PANALTA | Pan-Alberta Gas Ltd.  |
| PROGAS  | ProGas Limited  |
| PRTC    | Peace River Transmission Company Limited  |
| PWGE    | Plains-Western Gas & Electric Co. Ltd.  |
| SAPL    | Southern Alberta Pipe Lines Ltd.  |
| SLPETRO | Sulpetro Limited  |
| SOQUIP  | Societe quebecoise d'initiatives petrolieres                                    |
| SUNCOR  | Suncor Inc.   |
| SYNCRDE | Syncrude Canada Ltd.  |
| TCPL    | TransCanada PipeLines Limited   |
| TUC     | TransAlta Utilities Corporation   |
| WCOAST  | Westcoast Transmission Company Limited  |





## 2 RESERVES OF CONVENTIONAL CRUDE OIL

The Board estimates the remaining established reserves of conventional crude oil in Alberta to be 648 million cubic metres at year-end 1985. The net annual increase of some 7 million cubic metres is a result of all reserve adjustments less production that occurred during 1985. The initial established reserves attributed to 1985 pool discoveries increased about 12 per cent over 1984.

The changes in reserves for light-medium and heavy crude oil during 1985 are shown below.

|   | 1985                           | 1984                  | Change |
|---|--------------------------------|-----------------------|--------|
|   | 10 <sup>6</sup> m <sup>3</sup> |                       |        |
| Initial Established Reserves <sup>a</sup>   |                                |                       |        |
| Light-Medium                                | 1 996                          | 1 942                 | +53    |
| Heavy                                       | 127                            | 116                   | +11    |
| Total                                       | 2 123                          | 2 059                 | +64    |
|   | (13 359) <sup>b</sup>          | (12 956) <sup>b</sup> |        |
| Cumulative Production                       |                                |                       |        |
| Light-Medium                                | 1 394                          | 1 344                 | +50    |
| Heavy                                       | 80                             | 74                    | + 6    |
| Total                                       | 1 474                          | 1 418                 | +56    |
| Remaining Established Reserves <sup>a</sup> |                                |                       |        |
| Light-Medium                                | 601                            | 598                   | + 3    |
| Heavy                                       | 47                             | 43                    | + 4    |
| Total                                       | 648                            | 641                   | + 7    |
|   | (4 081) <sup>b</sup>           | (4 032) <sup>b</sup>  |        |

The increase in initial established reserves comprised 32.7 million cubic metres attributed to new pools discovered, an overall increase of 11.2 million from the reassessment or expansion of the reserves of some 500 primary depletion and enhanced-recovery pools, and 20.2 million added by the commencement of enhanced-recovery schemes.

<sup>a</sup> Discrepancies are due to rounding.

<sup>b</sup> Imperial equivalent in millions of stock-tank barrels.

Listed below are those light-medium pools for which a change of more than 1 000 000 cubic metres in initial established reserves was made during 1985.

| <b>Pool</b>                              | <b>Initial Established Reserves</b> |               | <b>Main Reason for Change</b>  |
|--|-------------------------------------|---------------|--|
|  | <b>1985</b>                         | <b>Change</b> |  |
|  | 10 <sup>3</sup> m <sup>3</sup>      |               |  |
| Bellshill Lake<br>Blairmore              | 12 300.0                            | +2 760.0      | Reassessment of initial volume in place and pool recovery factor               |
| Crystal<br>Viking A                      | 6 690.0                             | +3 730.0      | Enhanced recovery recognition  |
| Ferrier<br>Cardium G&L                   | 3 570.0                             | −1 350.0      | Reassessment of pool recovery factor   |
| Judy Creek<br>Beaverhill Lake A          | 58 000.0                            | +3 400.0      | Reassessment and enhanced recovery recognition                                 |
| Kaybob South<br>Triassic A               | 17 700.0                            | +1 700.0      | Reassessment and enhanced recovery recognition                                 |
| Leduc-Woodbend<br>D-3 A                  | 39 800.0                            | +1 100.0      | Reassessment of pool recovery factor   |
| Mitsue<br>Gilwood A                      | 58 500.0                            | +3 110.0      | Reassessment, wells added to waterflood area and enhanced recovery recognition |
| Nipisi<br>Gilwood A                      | 53 000.0                            | +2 280.0      | Reassessment of initial volume in place and pool recovery factor               |
| Pembina<br>Nisku L                       | 4 100.0                             | +1 600.0      | Reassessment and enhanced recovery recognition                                 |
| Pembina<br>Nisku Q                       | 2 350.0                             | +1 230.0      | Reassessment and enhanced recovery recognition                                 |
| Ricinus<br>Cardium A                     | 1 690.0                             | −1 190.0      | Reassessment of pool recovery factor   |
| Shekilie<br>Keg River RR                 | 73.5                                | −1 146.5      | Reassessment of initial volume in place  |
| Utikuma Lake<br>Keg River<br>Sandstone A | 7 650.0                             | +1 700.0      | Reassessment of pool recovery factor   |
| Wapiti<br>Cardium A                      | 1 360.0                             | +1 156.0      | Reassessment of initial volume in place  |
| Willesden Green<br>Cardium A             | 25 300.0                            | −2 100.0      | Reassessment of pool recovery factor   |

Some 96 other major pools had changes in initial established reserves of between 100 000 and 1 000 000 cubic metres resulting in a net increase of 8 796 000 cubic metres in initial established reserves.



Listed below are those heavy oil pools for which a change of more than 250 000 cubic metres in initial established reserves was made during 1985.

| <b>Pool</b>                            | <b>Initial Established Reserves</b> |               | <b>Main Reason for Change</b>   |
|--|-------------------------------------|---------------|---|
|  | <b>1985</b>                         | <b>Change</b> |   |
|  | 10 <sup>3</sup> m <sup>3</sup>      |               |   |
| Bantry<br>Mannville A                  | 8 100.0                             | +1 710.0      | Reassessment of pool recovery factor                                      |
| Cessford<br>Mannville Y&Z              | 804.0                               | + 274.0       | Reassessment of initial volume in place                                   |
| Countess<br>Upper Mannville D          | 5 410.0                             | + 307.0       | Reassessment and enhanced recovery recognition                            |
| Grand Forks<br>Lower Mannville D       | 6 230.0                             | + 660.0       | Reassessment and enhanced recovery recognition                            |
| Grand Forks<br>Lower Mannville G       | 1 000.0                             | + 410.0       | Reassessment of initial volume in place and pool recovery factor          |
| Lloydminster<br>Sparky G               | 975.0                               | + 400.0       | Reassessment of initial volume in place                                   |
| Sibbald<br>Upper Mannville C           | 639.0                               | + 383.2       | Reassessment and enhanced recovery recognition                            |
| Wainwright<br>Wainwright &<br>Sparky A | 11 900.0                            | + 576.0       | Reassessment of initial volume in place and enhanced recovery recognition |

Some 23 other major heavy oil pools had changes in initial established reserves of between 50 000 and 250 000 cubic metres resulting in a net increase of 1 880 000 cubic metres in initial established reserves.

The Board's estimates of reserves for 1985 are summarized by crude-oil types and recovery mechanisms in Table 2-1, by geological period and crude-oil type in Table 2-2, and by geological formation in Table 2-3. These historical data assist in estimating future crude-oil potential as discussed in Section 8.

Table 2-4, subdivided into light-medium and heavy crude oil, lists the reserves and reservoir factors to year-end 1985 for each designated non-confidential crude-oil pool in Alberta.

The map included in the back pocket of this report will assist the reader interested in the geographic distribution of reserves and in locating the fields and pools listed in Table 2-4. The approximate location of each field is shown immediately following the field name in Table 2-4.

**TABLE 2-1 SUMMARY OF RESERVES OF CONVENTIONAL CRUDE OIL  
ATTRIBUTABLE TO VARIOUS RECOVERY MECHANISMS  
As At 31 December 1985**

|   | 1                              | 2   | 3                              | 4  | 5                               | 6   | 7                            |
|---|--------------------------------|---|--------------------------------|--|---------------------------------|---|------------------------------|
| Crude-Oil Type<br>and Recovery<br>Mechanism | Initial<br>Volume<br>in Place  | Initial<br>Primary<br>Established<br>Reserves | Average<br>Primary<br>Recovery | Initial<br>Enhanced<br>Established<br>Reserves | Average<br>Enhanced<br>Recovery | Initial<br>Total<br>Established<br>Reserves | Average<br>Total<br>Recovery |
|   | 10 <sup>6</sup> m <sup>3</sup> | 10 <sup>6</sup> m <sup>3</sup>                | fraction                       | 10 <sup>6</sup> m <sup>3</sup>                 | fraction                        | 10 <sup>6</sup> m <sup>3</sup>              | fraction                     |
| Light-Medium                                |                                |   |                                |  |                                 |   |                              |
| Primary Depletion                           | 2 876.6                        | 697.5   | 0.24                           | 0  | 0                               | 697.1                                       | 0.24                         |
| Solvent Flood                               | 568.4                          | 168.5   | 0.30                           | 179.2  | 0.32                            | 347.7                                       | 0.61                         |
| Waterflood                                  | 2 836.9                        | 486.8   | 0.17                           | 426.1  | 0.15                            | 913.9                                       | 0.32                         |
| Gas Flood                                   | 67.5                           | 33.6  | 0.50                           | 3.3  | 0.05                            | 36.8  | 0.55                         |
| Heavy                                       |                                |   |                                |  |                                 |   |                              |
| Primary Depletion                           | 947.1                          | 61.2  | 0.06                           | 0  | 0                               | 61.4  | 0.06                         |
| Waterflood                                  | 233.1                          | 21.1  | 0.09                           | 44.8   | 0.19                            | 65.9  | 0.28                         |
| Total <sup>a</sup>                          | <u>7 529.6</u>                 | <u>1 468.7</u>                                | <u>0.20<sup>b</sup></u>        | <u>653.5</u>                                   | <u>0.09<sup>b</sup></u>         | <u>2 122.8</u>                              | <u>0.28<sup>b</sup></u>      |
|   | (47 383) <sup>c</sup>          | (9 242) <sup>c</sup>                          |                                | (4 112) <sup>c</sup>                           |                                 | (13 359) <sup>c</sup>                       |                              |

<sup>a</sup> Discrepancies are due to rounding.

<sup>b</sup> The estimated recovery for all pools in the province, if depleted under their natural depletion mechanism, would be 20 per cent of initial volume in place. Implementation of enhanced recovery schemes in some pools is expected to result in an increase in the average recovery factor for all pools in Alberta to 28 per cent.

<sup>c</sup> Imperial equivalent in millions of stock-tank barrels.

**TABLE 2-2 DISTRIBUTION OF RESERVES OF CONVENTIONAL CRUDE OIL  
BY GEOLOGICAL PERIOD AND CRUDE OIL TYPE  
As At 31 December 1985**

|                      | 1                              | 2                    | 3                     | 4                               | 5                  | 6                     | 7                                 | 8                  | 9                    | 10                          | 11               | 12    |
|----------------------|--------------------------------|----------------------|-----------------------|---------------------------------|--------------------|-----------------------|-----------------------------------|--------------------|----------------------|-----------------------------|------------------|-------|
| Geological<br>Period | Initial Volume In Place        |                      |                       | Initial Established<br>Reserves |                    |                       | Remaining Established<br>Reserves |                    |                      | Average Recovery            |                  |       |
|                      | Light-<br>Medium<br>Density    | Heavy<br>Density     | Total                 | Light-<br>Medium<br>Density     | Heavy<br>Density   | Total                 | Light-<br>Medium<br>Density       | Heavy<br>Density   | Total                | Light-<br>Medium<br>Density | Heavy<br>Density | Total |
|                      | 10 <sup>6</sup> m <sup>3</sup> |                      |                       |                                 |                    |                       |                                   |                    |                      | fraction                    |                  |       |
| Cretaceous           |                                |                      |                       |                                 |                    |                       |                                   |                    |                      |                             |                  |       |
| Upper                | 1 805.6                        | 0.1                  | 1 805.7               | 338.6                           | 0                  | 338.6                 | 127.5                             | 0                  | 127.5                | 0.19                        | 0                | 0.19  |
| Lower                | 705.2                          | 1 069.9              | 1 775.1               | 112.8                           | 117.4              | 230.2                 | 44.4                              | 41.4               | 85.8                 | 0.16                        | 0.11             | 0.13  |
| Jurassic             | 60.5                           | 11.1                 | 71.6                  | 14.2                            | 1.9                | 16.1                  | 6.2                               | 0.4                | 6.6                  | 0.23                        | 0.17             | 0.22  |
| Triassic             | 141.2                          | 0                    | 141.2                 | 38.8                            | 0                  | 38.8                  | 20.3                              | 0                  | 20.3                 | 0.27                        | 0                | 0.27  |
| Mississippian        | 493.7                          | 46.2                 | 539.9                 | 78.5                            | 4.8                | 83.3                  | 18.1                              | 2.2                | 20.3                 | 0.16                        | 0.10             | 0.15  |
| Devonian             |                                |                      |                       |                                 |                    |                       |                                   |                    |                      |                             |                  |       |
| Upper                | 2 167.3                        | 6.4                  | 2 173.7               | 1 065.0                         | 0.5                | 1 065.5               | 233.5                             | 0.4                | 233.9                | 0.49                        | 0.08             | 0.49  |
| Middle               | 745.1                          | 0                    | 745.1                 | 311.7                           | 0                  | 311.7                 | 118.6                             | 0                  | 118.6                | 0.42                        | 0                | 0.42  |
| Other                | 229.8                          | 46.0                 | 275.8                 | 35.9                            | 2.6                | 38.5                  | 33.3                              | 2.3                | 35.6                 | 0.16                        | 0.06             | 0.14  |
| Total <sup>a</sup>   | 6 349.4                        | 1 180.2              | 7 529.6               | 1 995.5                         | 127.3              | 2 122.8               | 601.6                             | 46.9               | 648.5                | 0.31                        | 0.11             | 0.28  |
|                      | (39 956) <sup>b</sup>          | (7 427) <sup>b</sup> | (47 383) <sup>b</sup> | (12 558) <sup>b</sup>           | (801) <sup>b</sup> | (13 359) <sup>b</sup> | (3 786) <sup>b</sup>              | (295) <sup>b</sup> | (4 081) <sup>b</sup> |                             |                  |       |

<sup>a</sup> Discrepancies are due to rounding.

<sup>b</sup> Imperial equivalent in millions of stock-tank barrels.

**TABLE 2-3      GEOLOGICAL DISTRIBUTION OF RESERVES OF CONVENTIONAL CRUDE OIL**  
**As At 31 December 1985**

| Geological Distribution | 1                              | 2                            | 3                              | 4                       | 5                            | 6                              |
|-------------------------|--------------------------------|------------------------------|--------------------------------|-------------------------|------------------------------|--------------------------------|
|                         | Initial Volume In Place        | Initial Established Reserves | Remaining Established Reserves | Initial Volume in Place | Initial Established Reserves | Remaining Established Reserves |
|                         | 10 <sup>6</sup> m <sup>3</sup> |                              |                                | Percentage of total     |                              |                                |
| Upper Cretaceous        |                                |                              |                                |                         |                              |                                |
| Belly River             | 143.4                          | 27.9                         | 14.3                           | 1.9                     | 1.3                          | 2.2                            |
| Cardium                 | 1 608.8                        | 305.4                        | 109.0                          | 21.4                    | 14.4                         | 16.8                           |
| Miscellaneous           | 53.5                           | 5.2                          | 3.9                            | 0.7                     | 0.2                          | 0.6                            |
| Subtotal                | 1 805.7                        | 338.5                        | 127.2                          | 24.0                    | 15.9                         | 19.6                           |
| Lower Cretaceous        |                                |                              |                                |                         |                              |                                |
| Viking                  | 272.5                          | 55.9                         | 17.8                           | 3.6                     | 2.6                          | 2.7                            |
| Basal Colorado          | 11.8                           | 2.7                          | 1.0                            | 0.2                     | 0.1                          | 0.2                            |
| Mannville               | 1 488.5                        | 171.3                        | 67.0                           | 19.8                    | 8.1                          | 10.3                           |
| Miscellaneous           | 2.3                            | 0.2                          | 0.1                            | 0                       | 0                            | 0                              |
| Subtotal                | 1 775.1                        | 230.1                        | 85.9                           | 23.6                    | 10.8                         | 13.2                           |
| Jurassic                |                                |                              |                                |                         |                              |                                |
| Jurassic                | 55.0                           | 13.8                         | 5.7                            | 0.7                     | 0.7                          | 0.9                            |
| Miscellaneous           | 16.6                           | 2.3                          | 0.8                            | 0.2                     | 0.1                          | 0.1                            |
| Subtotal                | 71.6                           | 16.1                         | 6.5                            | 0.9                     | 0.8                          | 1.0                            |
| Triassic                |                                |                              |                                |                         |                              |                                |
| Triassic                | 64.4                           | 25.7                         | 10.7                           | 0.9                     | 1.2                          | 1.6                            |
| Miscellaneous           | 76.8                           | 13.0                         | 9.6                            | 1.0                     | 0.6                          | 1.5                            |
| Subtotal                | 141.2                          | 38.7                         | 20.3                           | 1.9                     | 1.8                          | 3.1                            |
| Mississippian           |                                |                              |                                |                         |                              |                                |
| Rundle                  | 482.5                          | 74.4                         | 15.0                           | 6.4                     | 3.5                          | 2.3                            |
| Miscellaneous           | 57.3                           | 8.9                          | 5.3                            | 0.8                     | 0.4                          | 0.8                            |
| Subtotal                | 539.8                          | 83.3                         | 20.3                           | 7.2                     | 3.9                          | 3.1                            |
| Upper Devonian          |                                |                              |                                |                         |                              |                                |
| Wabamun                 | 23.9                           | 4.0                          | 2.3                            | 0.3                     | 0.2                          | 0.4                            |
| Nisku                   | 325.1                          | 167.0                        | 51.5                           | 4.3                     | 7.9                          | 7.9                            |
| Leduc                   | 792.5                          | 486.0                        | 59.4                           | 10.5                    | 22.9                         | 9.2                            |
| Beaverhill Lake         | 953.8                          | 392.2                        | 109.1                          | 12.7                    | 18.5                         | 16.8                           |
| Miscellaneous           | 78.5                           | 16.4                         | 11.8                           | 1.0                     | 0.8                          | 1.8                            |
| Subtotal                | 2 173.8                        | 1 065.6                      | 234.1                          | 28.9                    | 50.2                         | 36.1                           |

TABLE 2-3 (continued)

| Geological<br>Distribution    | 1                              | 2                                  | 3                                    | 4                             | 5                                  | 6                                    |
|-------------------------------|--------------------------------|------------------------------------|--------------------------------------|-------------------------------|------------------------------------|--------------------------------------|
|                               | Initial<br>Volume<br>In Place  | Initial<br>Established<br>Reserves | Remaining<br>Established<br>Reserves | Initial<br>Volume<br>in Place | Initial<br>Established<br>Reserves | Remaining<br>Established<br>Reserves |
|                               | 10 <sup>6</sup> m <sup>3</sup> |                                    |                                      | Percentage of total           |                                    |                                      |
| Middle Devonian               |                                |                                    |                                      |                               |                                    |                                      |
| Keg River                     | 461.3                          | 189.3                              | 79.2                                 | 6.1                           | 8.9                                | 12.2                                 |
| Miscellaneous                 | 283.9                          | 122.3                              | 39.4                                 | 3.8                           | 5.8                                | 6.1                                  |
| (Gilwood and<br>Granite Wash) |                                |                                    |                                      |                               |                                    |                                      |
| Subtotal                      | 745.2                          | 311.6                              | 118.6                                | 9.9                           | 14.7                               | 18.3                                 |
| Undefined and<br>Confidential | 275.8                          | 38.5                               | 35.7                                 | 3.7                           | 1.8                                | 5.5                                  |
| Total <sup>a</sup>            | 7 529.6                        | 2 122.8                            | 648.5                                | 100.0                         | 100.0                              | 100.0                                |
|                               | (47 383) <sup>b</sup>          | (12 558) <sup>b</sup>              | (4 081) <sup>b</sup>                 |                               |                                    |                                      |

<sup>a</sup> Discrepancies in totals and subtotals are due to rounding.<sup>b</sup> Imperial equivalent in millions of stock-tank barrels.







---

## **Reserves of Conventional Crude Oil and Basic Data**

---

TABLE 2-4

| FIELD<br>POOL         | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                       | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                       |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                       | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| ACHESON 053-26W4      |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE A           | 879.0                          | 0.14     |          | 123.0                          |                                | 123.0                          | 112.4                          | 10.6                                 |
| BLAIRMORE B           | 318.0                          | <0.02    |          | 4.1                            |                                | 4.1                            | 4.1                            |                                      |
| BLAIRMORE C           | 238.0                          | 0.21     |          | 50.0                           |                                | 50.0                           | 47.2                           | 2.8                                  |
| BLAIRMORE F           | 300.0                          | 0.25     |          | 75.0                           |                                | 75.0                           | 53.2                           | 21.8                                 |
| BLAIRMORE G           | 130.0                          | 0.15     |          | 19.5                           |                                | 19.5                           | 15.7                           | 3.8                                  |
| BLAIRMORE H           | 152.0                          | 0.07     |          | 10.6                           |                                | 10.6                           | 10.6                           |                                      |
| BLAIRMORE J           | 426.0                          | 0.10     |          | 42.6                           |                                | 42.6                           | 34.2                           | 8.4                                  |
| BLAIRMORE K           | 280.0                          | 0.15     |          | 42.0                           |                                | 42.0                           | 26.8                           | 15.2                                 |
| BLAIRMORE L           | 289.0                          | <0.04    |          | 11.6                           |                                | 11.6                           | 11.6                           |                                      |
| BLAIRMORE P           | 183.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BLAIRMORE V           | 198.0                          | 0.12     |          | 23.8                           |                                | 23.8                           | 6.9                            | 16.9                                 |
| BLAIRMORE W           | 79.8                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| BLAIRMORE X           | 399.0                          | 0.10     |          | 39.9                           |                                | 39.9                           | 3.1                            | 36.8                                 |
| BLAIRMORE D&I         | 555.0                          | 0.10     |          | 55.5                           |                                | 55.5                           | 47.7                           | 7.8                                  |
| ELLERSLIE A           | 343.0                          | 0.03     |          | 10.3                           |                                | 10.3                           | 3.7                            | 6.6                                  |
| ELLERSLIE B           | 387.0                          | 0.03     |          | 11.6                           |                                | 11.6                           | 3.2                            | 8.4                                  |
| ELLERSLIE C           | 406.0                          | 0.10     |          | 40.6                           |                                | 40.6                           | 1.1                            | 39.5                                 |
| WABAMUN A             | 917.0                          | 0.10     |          | 91.7                           |                                | 91.7                           | 3.7                            | 88.0                                 |
| D-2 A                 | 775.0                          | 0.55     |          | 426.0                          |                                | 426.0                          | 413.7                          | 12.3                                 |
| D-2 B                 | 50.2                           | <0.39    |          | 19.3                           |                                | 19.3                           | 19.3                           |                                      |
| D-3 A WATER FLOOD     | 27 600.0                       | 0.54     | 0.18     | 14 900.0                       | 4 970.0                        | 19 900.0                       | 16 950.1                       | 2 949.9                              |
| ACHESON EAST 052-25W4 |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE A           | 492.0                          | 0.25     |          | 123.0                          |                                | 123.0                          | 119.3                          | 3.7                                  |
| BLAIRMORE B           | 5 970.0                        | 0.10     |          | 597.0                          |                                | 597.0                          | 417.0                          | 180.0                                |
| BLAIRMORE C           | 250.0                          | 0.10     |          | 25.0                           |                                | 25.0                           | 14.1                           | 10.9                                 |
| BLAIRMORE D           | 572.0                          | 0.25     |          | 143.0                          |                                | 143.0                          | 57.3                           | 85.7                                 |
| BLAIRMORE E           | 226.0                          | 0.25     |          | 56.6                           |                                | 56.6                           | 12.0                           | 44.6                                 |
| GLAUCONITIC A         | 67.6                           | 0.10     |          | 6.8                            |                                | 6.8                            | 0.3                            | 6.5                                  |
| DETRITAL A            | 188.0                          | 0.03     |          | 5.6                            |                                | 5.6                            | 4.3                            | 1.3                                  |
| ADEN 001-09W4         |                                |          |          |                                |                                |                                |                                |                                      |
| BOW ISLAND B          | 221.0                          | 0.02     |          | 4.4                            |                                | 4.4                            | 1.1                            | 3.3                                  |
| AERIAL 029-18W4       |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A              | 275.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| MANNVILLE TOTAL       | 1 480.0                        |          |          | 177.0                          | 95.0                           | 272.0                          | 211.5                          | 60.5                                 |
| PRIMARY AREA          | 286.0                          | 0.12     |          | 34.3                           |                                | 34.3                           |                                |                                      |
| GAS FLOOD AREA        | 1 190.0                        | 0.12     | 0.08     | 143.0                          | 95.0                           | 238.0                          |                                |                                      |
| MANNVILLE B           | 167.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| MANNVILLE C           | 618.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| MANNVILLE D           | 211.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| ALBRIGHT 071-09W6     |                                |          |          |                                |                                |                                |                                |                                      |
| CHARLIE LAKE A        | 75.1                           | 0.10     |          | 7.5                            |                                | 7.5                            | 2.1                            | 5.4                                  |
| ALIX 040-23W4         |                                |          |          |                                |                                |                                |                                |                                      |
| D-2                   | 1 390.0                        | 0.35     |          | 487.0                          |                                | 487.0                          | 369.3                          | 117.7                                |
| ALLIANCE 040-12W4     |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE             | 556.0                          | 0.10     |          | 55.6                           |                                | 55.6                           | 40.4                           | 15.2                                 |
| ALSIKE 049-02W5       |                                |          |          |                                |                                |                                |                                |                                      |
| BANFF A               | 149.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| AMBER 115-07W6        |                                |          |          |                                |                                |                                |                                |                                      |
| MUSKEG A              | 14.3                           | <0.13    |          | 1.8                            |                                | 1.8                            | 1.8                            |                                      |
| MUSKEG B              | 159.0                          | <0.21    |          | 32.5                           |                                | 32.5                           | 32.5                           |                                      |
| MUSKEG C              | 129.0                          | 0.30     |          | 38.7                           |                                | 38.7                           | 4.3                            | 34.4                                 |
| MUSKEG D              | 410.0                          | 0.25     |          | 103.0                          |                                | 103.0                          | 2.7                            | 100.3                                |
| MUSKEG E              | 200.0                          | 0.25     |          | 50.0                           |                                | 50.0                           | 3.1                            | 46.9                                 |
| MUSKEG F              | 210.0                          | 0.30     |          | 63.0                           |                                | 63.0                           |                                | 63.0                                 |
| KEG RIVER A           | 365.0                          | 0.12     |          | 43.8                           |                                | 43.8                           | 32.0                           | 11.8                                 |
| KEG RIVER B           | 540.0                          | <0.06    |          | 27.9                           |                                | 27.9                           |                                |                                      |
| KEG RIVER C           | 255.0                          | 0.30     |          | 76.5                           |                                | 76.5                           | 20.1                           | 56.4                                 |
| KEG RIVER E           | 330.0                          | 0.25     |          | 82.5                           |                                | 82.5                           | 35.4                           | 47.1                                 |
| KEG RIVER F           | 222.0                          | <0.23    |          | 50.7                           |                                | 50.7                           | 50.7                           |                                      |
| KEG RIVER G           | 200.0                          | 0.25     |          | 50.0                           |                                | 50.0                           | 42.9                           | 7.1                                  |
| KEG RIVER I           | 115.0                          | <0.05    |          | 4.8                            |                                | 4.8                            | 4.8                            |                                      |
| KEG RIVER J           | 466.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| KEG RIVER P           | 300.0                          | 0.30     |          | 90.0                           |                                | 90.0                           | 14.2                           | 75.8                                 |
| KEG RIVER Q           | 295.0                          | 0.40     |          | 118.0                          |                                | 118.0                          | 36.7                           | 81.3                                 |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 323   | 1.86                        | 0.220    | 0.18          | 0.81      | 83                             | 839               | 54   | 9 270               | 1 234.4                    | 1952         | 81 12 - GPP                    |
| 150   | 1.95                        | 0.175    | 0.27          | 0.85      | 81                             | 834               | 54   | 9 380               | 1 265.2                    | 1954         | 64 04 - SUSP 60 04             |
| 57    | 3.64                        | 0.187    | 0.27          | 0.84      | 82                             | 834               | 56   | 9 480               | 1 270.4                    | 1954         | 84 07 - GPP                    |
| 115   | 2.24                        | 0.180    | 0.23          | 0.84      | 81                             | 855               | 52   | 9 380               | 1 276.8                    | 1962         | 83 06 - GPP                    |
| 32    | 3.39                        | 0.185    | 0.23          | 0.84      | 80                             | 855               | 53   | 9 270               | 1 248.2                    | 1963         | 83 12 - GPP                    |
| 64    | 1.84                        | 0.214    | 0.25          | 0.80      | 53                             | 855               | 54   | 9 380               | 1 235.0                    | 1950         | 77 12 - SUSP 81 10             |
| 65    | 6.10                        | 0.180    | 0.25          | 0.80      | 84                             | 839               | 52   | 9 410               | 1 231.4                    | 1966         | 75 12 - GPP                    |
| 62    | 4.79                        | 0.150    | 0.25          | 0.84      | 76                             | 855               | 54   | 10 330              | 1 253.8                    | 1969         | 85 12 - ABAND 74 06            |
| 129   | 1.74                        | 0.214    | 0.25          | 0.80      | 53                             | 855               | 54   | 9 380               | 1 203.7                    | 1950         | 74 12 - SUSP 81 02             |
| 64    | 3.50                        | 0.170    | 0.40          | 0.80      | 77                             | 840               | 51   | 8 912               | 1 214.3                    | 1980         | 83 12 - SUSP 81 02             |
| 32    | 5.30                        | 0.190    | 0.27          | 0.84      | 60                             | 867               | 55   | 8 983               | 1 274.2                    | 1983         | 84 03 - SUSP 83 11             |
| 64    | 1.50                        | 0.180    | 0.45          | 0.84      | 58                             | 877               | 56   | 9 073               | 1 245.9                    | 1951         | 84 08 - SUSP 83 11             |
| 64    | 5.50                        | 0.180    | 0.25          | 0.84      | 68                             | 853               | 56   | 9 092               | 1 245.8                    | 1951         | 84 10 - GPP                    |
| 226   | 2.62                        | 0.180    | 0.38          | 0.84      | 81                             | 839               | 49   | 9 200               | 1 238.8                    | 1966         | 84 08 - GPP                    |
| 64    | 4.80                        | 0.190    | 0.30          | 0.84      | 57                             | 840               | 54   | 9 420               | 1 275.6                    | 1962         | 85 12 - GPP                    |
| 64    | 5.00                        | 0.210    | 0.28          | 0.80      | 70                             | 835               | 72   | 9 119               | 1 239.3                    | 1982         | 85 12 - SUSP 85 01             |
| 64    | 6.00                        | 0.220    | 0.40          | 0.80      | 68                             | 845               | 72   | 8 952               | 1 235.0                    | 1981         | 82 06 - SUSP 83 05             |
| 64    | 28.80                       | 0.090    | 0.35          | 0.85      | 60                             | 885               | 42   | 7 855               | 1 314.0                    | 1982         | 83 12 - GPP                    |
| 486   | 8.17                        | 0.034    | 0.30          | 0.82      | 64                             | 834               | 57   | 10 900              | 1 397.5                    | 1952         | 64 04 - ABAND 71 09            |
| 65    | 6.10                        | 0.024    | 0.36          | 0.83      | 64                             | 834               | 56   | 10 900              | 1 419.8                    | 1952         | 83 12 - GPP                    |
| 1 542 | 24.12                       | 0.105    | 0.07          | 0.76      | 90                             | 834               | 60   | 11 930              | 1 547.8                    | 1950         |                                |
| 84    | 5.51                        | 0.182    | 0.27          | 0.80      | 74                             | 839               | 52   | 9 200               | 1 208.5                    | 1953         | 83 12 - GPP                    |
| 1 236 | 4.79                        | 0.180    | 0.30          | 0.80      | 74                             | 839               | 52   | 9 310               | 1 239.0                    | 1957         | 83 09 - GPP                    |
| 64    | 4.00                        | 0.190    | 0.35          | 0.80      | 74                             | 857               | 52   | 8 826               | 1 235.8                    | 1981         | 83 09 - GPP                    |
| 132   | 4.04                        | 0.200    | 0.33          | 0.80      | 71                             | 845               | 51   | 9 218               | 1 238.7                    | 1958         | 85 09 - GPP                    |
| 32    | 6.80                        | 0.200    | 0.35          | 0.80      | 56                             | 854               | 50   | 8 619               | 1 260.8                    | 1983         | 85 12 - GPP                    |
| 16    | 3.60                        | 0.170    | 0.25          | 0.92      | 26                             | 945               | 50   | 9 011               | 1 155.8                    | 1965         | 84 11 - GPP                    |
| 64    | 3.00                        | 0.210    | 0.45          | 0.85      | 60                             | 857               | 49   | 9 305               | 1 279.5                    | 1980         | 85 12 - GPP                    |
| 128   | 1.39                        | 0.230    | 0.40          | 0.90      | 21                             | 839               | 32   | 4 480               | 637.9                      | 1967         | 85 06 - GPP                    |
| 64    | 5.10                        | 0.150    | 0.25          | 0.75      | 125                            | 832               | 43   | 8 660               | 1 116.5                    | 1979         | 83 12 - SUSP 80 08             |
| 391   | 2.42                        | 0.223    | 0.20          | 0.82      | 78                             | 849               | 48   | 9 930               | 1 283.5                    | 1958         | 83 07 - GPP - MRL              |
| 81    | 2.62                        | 0.223    | 0.20          | 0.82      | 73                             | 867               | 47   | 9 731               | 1 297.5                    | 1979         | 84 12 - SUSP 81 11             |
| 310   | 4.90                        | 0.130    | 0.50          | 0.82      | 112                            | 854               | 43   | 9 350               | 1 323.5                    | 1979         | 83 12 - SUSP 81 10             |
| 64    | 11.00                       | 0.150    | 0.22          | 0.75      | 78                             | 850               | 24   | 7 345               | 1 293.3                    | 1980         | 83 12 - SUSP 80 10             |
| 64    | 3.90                        | 0.172    | 0.40          | 0.82      | 78                             | 850               | 24   | 7 345               | 1 293.3                    | 1980         |                                |
| 64    | 1.90                        | 0.090    | 0.12          | 0.78      | 76                             | 832               | 73   | 15 569              | 2 344.4                    | 1983         | 84 05 - GPP                    |
| 966   | 4.39                        | 0.057    | 0.19          | 0.71      | 152                            | 825               | 59   | 16 620              | 1 823.9                    | 1956         | 84 12 - GPP                    |
| 68    | 5.46                        | 0.250    | 0.35          | 0.92      | 29                             | 898               | 35   | 6 620               | 961.9                      | 1951         | 82 12 - GPP                    |
| 64    | 3.50                        | 0.120    | 0.35          | 0.85      | 77                             | 900               | 64   | 15 487              | 1 548.5                    | 1980         | 83 12 - SUSP 81 10             |
| 2     | 14.72                       | 0.060    | 0.15          | 0.80      | 73                             | 844               | 72   | 15 100              | 1 506.9                    | 1968         | 71 05 - SUSP 70 03             |
| 17    | 22.74                       | 0.065    | 0.15          | 0.76      | 95                             | 834               | 70   | 15 380              | 1 565.1                    | 1968         | 83 12 - SUSP 81 11             |
| 64    | 10.50                       | 0.030    | 0.20          | 0.80      | 64                             | 800               | 82   | 14 623              | 1 577.3                    | 1982         | 83 01 - GPP                    |
| 64    | 12.70                       | 0.070    | 0.10          | 0.80      | 86                             | 846               | 70   | 12 072              | 1 521.8                    | 1983         | 84 08 - GPP                    |
| 64    | 5.00                        | 0.085    | 0.08          | 0.80      | 68                             | 856               | 78   | 10 000              | 1 535.1                    | 1985         | 85 05 - GPP                    |
| 64    | 5.40                        | 0.090    | 0.10          | 0.75      | 139                            | 820               | 72   | 14 875              | 1 520.3                    | 1984         | 85 08 - GPP                    |
| 19    | 43.10                       | 0.070    | 0.15          | 0.75      | 110                            | 825               | 72   | 15 510              | 1 566.1                    | 1968         | 81 12 - SUSP 78 06             |
| 38    | 37.95                       | 0.060    | 0.17          | 0.75      | 111                            | 825               | 72   | 15 560              | 1 566.4                    | 1968         | 79 04 - SUSP 78 06             |
| 12    | 36.79                       | 0.093    | 0.15          | 0.73      | 127                            | 40                | 76   | 15 583              | 1 581.6                    | 1968         | 85 04 - GPP                    |
| 28    | 39.00                       | 0.070    | 0.40          | 0.72      | 125                            | 825               | 76   | 15 650              | 1 580.1                    | 1968         | 84 11 - SUSP 84 05             |
| 14    | 26.35                       | 0.097    | 0.15          | 0.73      | 126                            | 829               | 67   | 15 450              | 1 575.8                    | 1968         | 70 02 - GPP                    |
| 14    | 27.00                       | 0.090    | 0.15          | 0.68      | 157                            | 820               | 72   | 15 220              | 1 557.8                    | 1969         | 81 10 - GPP                    |
| 16    | 24.23                       | 0.052    | 0.25          | 0.77      | 152                            | 820               | 72   | 15 040              | 1 549.0                    | 1969         | 78 12 - GPP                    |
| 15    | 40.23                       | 0.120    | 0.15          | 0.74      | 110                            | 829               | 77   | 15 170              | 1 578.6                    | 1969         | 71 01 - SUSP 70 10             |
| 25    | 18.30                       | 0.100    | 0.10          | 0.72      | 128                            | 820               | 76   | 15 461              | 1 605.0                    | 1982         | 85 07 - GPP                    |
| 33    | 21.00                       | 0.070    | 0.23          | 0.78      | 93                             | 826               | 73   | 15 196              | 1 567.5                    | 1982         | 85 04 - GPP                    |



TABLE 2-4

| FIELD<br>POOL                         | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                       | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                       |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                       | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>AMBER 115-07W6<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER R                           | 300.0                          | 0.30     |          | 90.0                           |                                | 90.0                           | 21.3                           | 68.7                                 |
| KEG RIVER S                           | 630.0                          | 0.35     |          | 221.0                          |                                | 221.0                          | 11.8                           | 209.2                                |
| KEG RIVER T                           | 518.0                          | 0.25     |          | 130.0                          |                                | 130.0                          | 8.6                            | 121.4                                |
| KEG RIVER U                           | 797.0                          | 0.25     |          | 199.0                          |                                | 199.0                          | 13.1                           | 185.9                                |
| <b>AMIGO 120-08W6</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| MUSKEG A                              | 104.0                          | 0.30     |          | 31.2                           |                                | 31.2                           | 0.9                            | 30.3                                 |
| KEG RIVER A                           | 489.0                          | 0.20     |          | 97.8                           |                                | 97.8                           | 23.3                           | 74.5                                 |
| KEG RIVER B                           | 2 920.0                        | 0.30     |          | 876.0                          |                                | 876.0                          | 104.5                          | 771.5                                |
| KEG RIVER C                           | 184.0                          | 0.40     |          | 73.6                           |                                | 73.6                           | 26.8                           | 46.8                                 |
| KEG RIVER D                           | 1 330.0                        | <0.03    |          | 39.5                           |                                | 39.5                           | 39.5                           |                                      |
| KEG RIVER E                           | 100.0                          | 0.30     |          | 30.0                           |                                | 30.0                           | 8.9                            | 21.1                                 |
| KEG RIVER F                           | 1 120.0                        | 0.25     |          | 280.0                          |                                | 280.0                          | 4.6                            | 275.4                                |
| KEG RIVER G                           | 613.0                          | 0.25     |          | 153.0                          |                                | 153.0                          | 6.3                            | 146.7                                |
| <b>AMISK 041-08W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING G                              | 55.9                           | 0.10     |          | 5.6                            |                                | 5.6                            |                                | 5.6                                  |
| <b>ANTE CREEK 065-24W5</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| DUNVEGAN A                            | 288.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| BEAVERHILL LAKE<br>SOLVENT FLOOD      | 5 930.0                        | 0.16     | 0.44     | 949.0                          | 2 610.0                        | 3 560.0                        | 1 759.6                        | 1 800.4                              |
| BEAVERHILL LAKE B                     | 1 670.0                        | 0.35     |          | 585.0                          |                                | 585.0                          | 390.2                          | 194.8                                |
| GILWOOD A                             | 46.1                           | <0.01    |          | 0.2                            |                                | 0.2                            |                                | 0.2                                  |
| <b>ANTE CREEK NORTH<br/>067-23W5</b>  |                                |          |          |                                |                                |                                |                                |                                      |
| PEACE RIVER D                         | 198.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| <b>ARMADA 017-19W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                     | 724.0                          | 0.10     |          | 72.4                           |                                | 72.4                           | 9.6                            | 62.8                                 |
| BASAL QUARTZ G                        | 107.0                          | 0.10     |          | 10.7                           |                                | 10.7                           |                                | 10.7                                 |
| <b>ARMISIE 052-25W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE                             | 2 170.0                        | 0.15     |          | 326.0                          |                                | 326.0                          | 245.4                          | 80.6                                 |
| <b>ASTOTIN 054-18W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING D                              | 109.0                          | 0.10     |          | 10.9                           |                                | 10.9                           | 0.3                            | 10.6                                 |
| VIKING H                              | 194.0                          | 0.10     |          | 19.4                           |                                | 19.4                           | 2.1                            | 17.3                                 |
| VIKING I                              | 187.0                          | 0.10     |          | 18.7                           |                                | 18.7                           | 0.2                            | 18.5                                 |
| <b>BADGER 016-18W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                     | 103.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| <b>BARONS 012-23W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| COLORADO                              | 280.0                          | 0.30     |          | 83.9                           |                                | 83.9                           | 83.1                           | 0.8                                  |
| BOW ISLAND A                          | 64.8                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| <b>BASHAW 041-23W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL MANNVILLE U                     | 146.0                          | <0.01    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| D-2 A                                 | 992.0                          | <0.03    |          | 22.0                           |                                | 22.0                           | 20.3                           | 1.7                                  |
| D-2 B                                 | 1 400.0                        | 0.35     |          | 490.0                          |                                | 490.0                          | 43.6                           | 446.4                                |
| IRETON A                              | 416.0                          | 0.07     |          | 29.1                           |                                | 29.1                           | 23.3                           | 5.8                                  |
| D-3 A                                 | 1 600.0                        | 0.35     |          | 560.0                          |                                | 560.0                          | 434.7                          | 125.3                                |
| D-3 B                                 | 264.0                          | 0.10     |          | 26.4                           |                                | 26.4                           | 21.0                           | 5.4                                  |
| <b>BASSAND 021-18W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| OSTRACOD A                            | 136.0                          | 0.10     |          | 13.6                           |                                | 13.6                           | 1.0                            | 12.6                                 |
| <b>BATTLE 046-20W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING                                | 824.0                          | 0.25     |          | 206.0                          |                                | 206.0                          | 163.1                          | 42.9                                 |
| <b>BATTLE NORTH 046-20W4</b>          |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING                                | 242.0                          | 0.28     |          | 67.7                           |                                | 67.7                           | 63.8                           | 3.9                                  |
| <b>BATTLE SOUTH 046-20W4</b>          |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING                                | 937.0                          | 0.30     |          | 281.0                          |                                | 281.0                          | 189.1                          | 91.9                                 |
| <b>BEATON 087-02W6</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| WABAMUN A                             | 102.0                          | 0.10     |          | 10.2                           |                                | 10.2                           | 2.1                            | 8.1                                  |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 19    | 23.60                       | 0.100    | 0.13          | 0.77      | 93                             | 829               | 73   | 15 433              | 1 588.3                    | 1984         | 85 04                          |
| 64    | 34.50                       | 0.060    | 0.34          | 0.72      | 127                            | 800               | 76   | 15 555              | 1 580.8                    | 1983         | 85 02                          |
| 64    | 12.00                       | 0.100    | 0.10          | 0.75      | 138                            | 806               | 71   | 13 500              | 1 599.0                    | 1984         | 85 03                          |
| 64    | 21.20                       | 0.089    | 0.12          | 0.75      | 115                            | 834               | 67   | 14 756              | 1 564.4                    | 1984         | 85 03                          |
| 64    | 3.50                        | 0.080    | 0.13          | 0.67      | 155                            | 808               | 83   | 15 350              | 1 787.0                    | 1983         | 83 02                          |
| 36    | 34.80                       | 0.076    | 0.27          | 0.70      | 130                            | 833               | 83   | 15 829              | 1 814.3                    | 1981         | 84 11                          |
| 64    | 96.00                       | 0.080    | 0.15          | 0.70      | 135                            | 804               | 74   | 15 322              | 1 756.0                    | 1979         | 79 08                          |
| 6     | 58.17                       | 0.080    | 0.11          | 0.74      | 118                            | 850               | 71   | 16 104              | 1 725.0                    | 1982         | 85 05                          |
| 64    | 60.13                       | 0.060    | 0.20          | 0.72      |                                |                   |      | 15 272              | 1 794.0                    | 1970         | 79 12 - SUSP 79 02             |
| 9     | 36.00                       | 0.060    | 0.25          | 0.65      | 160                            | 814               | 78   | 15 478              | 1 804.0                    | 1982         | 83 06                          |
| 64    | 32.00                       | 0.100    | 0.13          | 0.63      | 170                            | 826               | 71   | 16 119              | 1 746.0                    | 1982         | 85 04                          |
| 64    | 33.00                       | 0.060    | 0.18          | 0.59      | 233                            | 803               | 81   | 16 766              | 1 803.4                    | 1983         | 85 04                          |
| 64    | 1.22                        | 0.130    | 0.40          | 0.91      | 38                             | 857               | 37   | 5 940               | 757.0                      | 1978         | 78 11 - SUSP 82 04             |
| 64    | 4.61                        | 0.181    | 0.35          | 0.83      | 62                             | 834               | 59   | 10 340              | 1 365.8                    | 1974         | 74 12 - ABAND 79 02            |
| 3 633 | 6.92                        | 0.063    | 0.22          | 0.48      | 342                            | 806               | 110  | 35 580              | 3 434.8                    | 1963         | 64 04                          |
| 1 540 | 3.90                        | 0.057    | 0.25          | 0.65      | 166                            | 820               | 103  | 37 605              | 3 391.5                    | 1966         | 71 02                          |
| 65    | 2.44                        | 0.090    | 0.35          | 0.50      | 35                             | 806               | 127  | 34 820              | 3 397.9                    | 1965         | 65 05 - SUSP 66 02             |
| 64    | 6.27                        | 0.110    | 0.35          | 0.69      | 147                            | 825               | 59   | 16 493              | 1 879.1                    | 1979         | 81 01 - SUSP 80 07             |
| 64    | 7.90                        | 0.208    | 0.19          | 0.85      | 62                             | 896               | 45   | 11 718              | 1 196.3                    | 1980         | 81 03                          |
| 64    | 2.00                        | 0.160    | 0.40          | 0.87      | 60                             | 871               | 36   | 12 308              | 1 213.4                    | 1984         | 85 06                          |
| 407   | 4.76                        | 0.180    | 0.25          | 0.83      | 79                             | 834               | 49   | 9 520               | 1 238.1                    | 1951         | 81 12 - GPP                    |
| 64    | 1.50                        | 0.210    | 0.40          | 0.90      | 41                             | 864               | 23   | 4 554               | 683.3                      | 1981         | 84 11                          |
| 64    | 2.20                        | 0.250    | 0.40          | 0.92      | 30                             | 846               | 28   | 5 181               | 687.6                      | 1983         | 84 11                          |
| 64    | 2.20                        | 0.240    | 0.40          | 0.92      | 30                             | 846               | 28   | 5 654               | 681.0                      | 1984         | 84 11                          |
| 65    | 1.22                        | 0.230    | 0.35          | 0.87      | 51                             | 881               | 54   | 12 250              | 1 125.9                    | 1974         | 76 04 - SUSP 76 06             |
| 221   | 0.82                        | 0.227    | 0.20          | 0.85      | 51                             | 855               | 37   | 9 380               | 1 253.6                    | 1950         | 75 12 - GPP                    |
| 65    | 1.52                        | 0.140    | 0.50          | 0.94      | 23                             | 855               | 34   | 5 000               | 1 307.9                    | 1973         | 74 12 - ABAND 76 09            |
| 64    | 2.70                        | 0.170    | 0.40          | 0.83      | 76                             | 844               | 42   | 10 590              | 1 478.7                    | 1978         | 85 12 - SUSP 83 12             |
| 903   | 4.82                        | 0.037    | 0.20          | 0.77      | 93                             | 844               | 57   | 16 270              | 1 715.1                    | 1962         | 83 12 - GPP                    |
| 256   | 7.78                        | 0.110    | 0.17          | 0.77      | 88                             | 830               | 62   | 12 856              | 1 800.2                    | 1973         | 85 10                          |
| 65    | 15.54                       | 0.074    | 0.30          | 0.80      | 76                             | 910               | 51   | 16 270              | 1 717.2                    | 1963         | 84 12 - GPP                    |
| 1 375 | 3.05                        | 0.067    | 0.15          | 0.67      | 163                            | 825               | 58   | 16 070              | 1 756.6                    | 1951         | 84 12 - GPP                    |
| 130   | 4.72                        | 0.077    | 0.20          | 0.70      | 142                            | 829               | 58   | 15 270              | 1 746.5                    | 1965         | 83 12 - GPP                    |
| 64    | 1.80                        | 0.210    | 0.34          | 0.85      | 68                             | 883               | 31   | 9 564               | 1 179.1                    | 1984         | 84 11 - SUSP 85 08             |
| 574   | 1.82                        | 0.146    | 0.40          | 0.90      | 35                             | 839               | 37   | 5 690               | 983.9                      | 1953         | 83 12 - GPP                    |
| 258   | 1.16                        | 0.150    | 0.40          | 0.90      | 35                             | 839               | 37   | 5 690               | 990.3                      | 1954         | 64 04 - GPP                    |
| 451   | 2.53                        | 0.152    | 0.40          | 0.90      | 35                             | 839               | 37   | 5 690               | 970.2                      | 1954         | 84 07 - GPP                    |
| 64    | 5.79                        | 0.050    | 0.19          | 0.67      | 160                            | 876               | 62   | 15 800              | 1 654.1                    | 1974         | 81 12                          |



TABLE 2-4

| FIELD<br>POOL                                 | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| BEAVERHILL LAKE<br>052-19W4<br>UPPER VIKING F | 150.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| BELLOY 078-01W6<br>BELLOY A                   | 68.5                           | 0.15     |          | 10.3                           |                                | 10.3                           | 6.3                            | 4.0                                  |
| BELLSHILL LAKE<br>041-12W4                    |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER VIKING A                                | 67.5                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BLAIRMORE                                     | 30 800.0                       | 0.40     |          | 12 300.0                       |                                | 12 300.0                       | 7 733.7                        | 4 566.3                              |
| BLAIRMORE E                                   | 1 790.0                        | 0.03     |          | 53.7                           |                                | 53.7                           | 6.9                            | 46.8                                 |
| BLAIRMORE F                                   | 31.3                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| ELLERSLIE A                                   | 1 530.0                        | 0.05     |          | 76.5                           |                                | 76.5                           | 7.4                            | 69.1                                 |
| ELLERSLIE C                                   | 51.1                           | 0.10     |          | 5.1                            |                                | 5.1                            |                                | 5.1                                  |
| BERRY 027-12W4<br>UPPER MANNVILLE C           | 4 230.0                        | 0.05     |          | 212.0                          |                                | 212.0                          | 27.4                           | 184.6                                |
| BIGORAY 052-08W5                              |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM B TOTAL                               | 3 480.0                        |          |          | 348.0                          | 700.0                          | 1 050.0                        | 315.9                          | 734.1                                |
| PRIMARY AREA                                  | 684.0                          | 0.10     |          | 68.4                           |                                | 68.4                           |                                |                                      |
| WATER FLOOD AREA                              | 2 800.0                        | 0.10     | 0.25     | 280.0                          | 700.0                          | 980.0                          |                                |                                      |
| OSTRACOD TOTAL                                | 2 750.0                        |          |          | 324.0                          | 685.0                          | 1 010.0                        | 770.1                          | 239.9                                |
| PRIMARY AREA                                  | 300.0                          | 0.10     |          | 30.0                           |                                | 30.0                           |                                |                                      |
| WATER FLOOD AREA                              | 2 450.0                        | 0.12     | 0.28     | 294.0                          | 685.0                          | 979.0                          |                                |                                      |
| OSTRACOD B                                    | 321.0                          | <0.02    |          | 4.4                            |                                | 4.4                            | 4.4                            |                                      |
| ELLERSLIE A                                   | 266.0                          | 0.02     |          | 5.3                            |                                | 5.3                            | 3.1                            | 2.2                                  |
| ELLERSLIE B                                   | 277.0                          | 0.10     |          | 27.7                           |                                | 27.7                           | 4.6                            | 23.1                                 |
| ELLERSLIE D TOTAL                             | 1 070.0                        |          |          | 107.0                          | 169.0                          | 276.0                          | 57.7                           | 218.3                                |
| PRIMARY AREA                                  | 225.0                          | 0.10     |          | 22.5                           |                                | 22.5                           |                                |                                      |
| WATER FLOOD AREA                              | 843.0                          | 0.10     | 0.20     | 84.3                           | 169.0                          | 253.0                          |                                |                                      |
| ELLERSLIE E                                   | 142.0                          | 0.10     |          | 14.2                           |                                | 14.2                           | 5.7                            | 8.5                                  |
| ELLERSLIE G TOTAL                             | 1 140.0                        |          |          | 114.0                          | 90.0                           | 204.0                          | 55.7                           | 148.3                                |
| PRIMARY AREA                                  | 635.0                          | 0.10     |          | 63.5                           |                                | 63.5                           |                                |                                      |
| WATER FLOOD AREA                              | 500.0                          | 0.10     | 0.18     | 50.0                           | 90.0                           | 140.0                          |                                |                                      |
| ROCK CREEK A                                  | 187.0                          | 0.10     |          | 18.7                           |                                | 18.7                           | 4.9                            | 13.8                                 |
| ROCK CREEK B                                  | 37.0                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| ROCK CREEK C                                  | 130.0                          | 0.05     |          | 6.5                            |                                | 6.5                            | 4.8                            | 1.7                                  |
| NISKU A WATER FLOOD                           | 740.0                          | 0.30     | 0.15     | 222.0                          | 111.0                          | 333.0                          | 174.7                          | 158.3                                |
| NISKU B                                       | 1 500.0                        | 0.30     | 0.30     | 450.0                          | 450.0                          | 900.0                          | 380.9                          | 519.1                                |
| SOLVENT FLOOD                                 |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU C                                       | 1 050.0                        | 0.35     |          | 368.0                          |                                | 368.0                          | 49.9                           | 318.1                                |
| NISKU D WATER FLOOD                           | 2 200.0                        | 0.40     | 0.10     | 880.0                          | 220.0                          | 1 100.0                        | 290.9                          | 809.1                                |
| NISKU E WATER FLOOD                           | 2 000.0                        | 0.35     | 0.10     | 700.0                          | 200.0                          | 900.0                          | 311.4                          | 588.6                                |
| NISKU F WATER FLOOD                           | 2 800.0                        | 0.40     | 0.14     | 1 120.0                        | 392.0                          | 1 510.0                        | 809.9                          | 700.1                                |
| NISKU G WATER FLOOD                           | 750.0                          | 0.30     | 0.15     | 225.0                          | 113.0                          | 338.0                          | 189.6                          | 148.4                                |
| NISKU H WATER FLOOD                           | 2 200.0                        | 0.30     | 0.12     | 660.0                          | 264.0                          | 924.0                          | 253.1                          | 670.9                                |
| NISKU I WATER FLOOD                           | 600.0                          | 0.33     | 0.10     | 200.0                          | 60.0                           | 260.0                          | 126.6                          | 133.4                                |
| NISKU K TOTAL                                 | 850.0                          |          |          | 255.0                          | 85.0                           | 340.0                          | 168.6                          | 171.4                                |
| PRIMARY AREA                                  | 283.0                          | 0.30     |          | 84.9                           |                                | 84.9                           |                                |                                      |
| WATER FLOOD AREA                              | 567.0                          | 0.30     | 0.15     | 170.0                          | 85.0                           | 255.0                          |                                |                                      |
| BITTERN LAKE 046-22W4<br>NISKU A              | 180.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BLACK 110-09W6                                |                                |          |          |                                |                                |                                |                                |                                      |
| MUSKEG A                                      | 150.0                          | 0.30     |          | 45.0                           |                                | 45.0                           | 21.1                           | 23.9                                 |
| MUSKEG C                                      | 700.0                          | 0.15     |          | 105.0                          |                                | 105.0                          | 15.9                           | 89.1                                 |
| KEG RIVER A                                   | 2 860.0                        | 0.15     | 0.10     | 429.0                          | 286.0                          | 715.0                          | 615.3                          | 99.7                                 |
| WATER FLOOD                                   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER B                                   | 222.0                          | 0.10     |          | 22.2                           |                                | 22.2                           | 2.6                            | 19.6                                 |
| BLACKFOOT 022-23W4<br>LOWER MANNVILLE A       | 106.0                          | 0.20     |          | 21.2                           |                                | 21.2                           | 16.0                           | 5.2                                  |
| BONANZA 081-11W6<br>BOUNDARY A                | 5 910.0                        | 0.12     |          | 739.0                          | ERSD                           | 739.0                          | 266.4                          | 472.6                                |
| BONNIE GLEN 046-27W4                          |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                                     | 4 130.0                        | 0.05     |          | 207.0                          | ERSD                           | 207.0                          | 195.7                          | 11.3                                 |
| D-2 A   | 138.0                          | <0.08    |          | 9.8                            |                                | 9.8                            | 9.8                            |                                      |
| D-3 A   | 125 000.0                      | <0.68    |          | 84 700.0                       |                                | 84 700.0                       | 75 404.1                       | 9 295.9                              |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 2.00                        | 0.200    | 0.35          | 0.90      | 29                             | 864               | 38   | 5 163               | 794.0                      | 1978         | 85 12 - SUSP 80 03             |
| 64    | 1.70                        | 0.110    | 0.31          | 0.83      | 66                             | 868               | 45   | 11 514              | 1 257.7                    | 1977         | 85 12 - GPP                    |
| 65    | 0.91                        | 0.250    | 0.50          | 0.91      | 37                             | 849               | 27   | 5 520               | 767.8                      | 1974         | 75 12 - SUSP 75 09             |
| 2 368 | 7.08                        | 0.267    | 0.26          | 0.93      | 29                             | 892               | 34   | 6 480               | 919.6                      | 1956         | 85 02 - GPP                    |
| 272   | 5.70                        | 0.180    | 0.31          | 0.93      | 28                             | 899               | 32   | 6 220               | 955.1                      | 1977         | 83 12                          |
| 16    | 2.00                        | 0.150    | 0.30          | 0.93      | 26                             | 866               | 33   | 4 700               | 921.6                      | 1979         | 85 12 - SUSP 83 09             |
| 112   | 6.64                        | 0.270    | 0.18          | 0.93      | 28                             | 913               | 33   | 6 454               | 974.7                      | 1983         | 85 12                          |
| 15    | 1.60                        | 0.280    | 0.25          | 0.95      | 40                             | 922               | 34   | 7 500               | 984.8                      | 1984         | 85 10                          |
| 1 437 | 2.97                        | 0.190    | 0.41          | 0.88      | 49                             | 828               | 43   | 9 601               | 1 101.2                    | 1980         | 84 04                          |
| 896   |                             |          |               |           | 50                             | 872               | 49   | 14 990              | 1 492.7                    | 1978         | 85 11                          |
| 128   | 6.43                        | 0.110    | 0.16          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 768   | 4.55                        | 0.108    | 0.18          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 1 183 |                             |          |               |           | 111                            | 839               | 59   | 17 240              | 1 795.6                    | 1959         | 81 12                          |
| 186   | 1.62                        | 0.187    | 0.30          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 997   | 2.47                        | 0.187    | 0.30          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 64    | 4.00                        | 0.220    | 0.25          | 0.76      | 120                            | 834               | 60   | 17 650              | 1 841.6                    | 1968         | 81 12 - SUSP 73 10             |
| 64    | 4.00                        | 0.190    | 0.30          | 0.78      | 89                             | 839               | 60   | 7 671               | 1 785.3                    | 1979         | 81 12                          |
| 64    | 2.44                        | 0.320    | 0.29          | 0.78      | 25                             | 853               | 50   | 4 550               | 1 816.6                    | 1974         | 80 09                          |
| 512   |                             |          |               |           | 111                            | 833               | 64   | 16 202              | 1 820.1                    | 1979         | 84 09                          |
| 128   | 2.90                        | 0.130    | 0.39          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 384   | 3.63                        | 0.130    | 0.38          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 64    | 3.24                        | 0.137    | 0.39          | 0.82      | 70                             | 843               | 65   | 14 471              | 1 821.6                    | 1979         | 80 10                          |
| 382   |                             |          |               |           | 113                            | 853               | 50   | 16 555              | 1 800.3                    | 1978         | 84 02                          |
| 192   | 5.71                        | 0.120    | 0.32          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 190   | 4.54                        | 0.120    | 0.32          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 64    | 3.00                        | 0.200    | 0.30          | 0.70      | 135                            | 840               | 62   | 16 466              | 1 780.2                    | 1977         | 82 03                          |
| 80    | 1.50                        | 0.110    | 0.60          | 0.70      | 121                            | 840               | 57   | 15 097              | 1 770.4                    | 1979         | 85 07                          |
| 93    | 2.19                        | 0.140    | 0.35          | 0.70      | 121                            | 840               | 57   | 15 739              | 1 770.4                    | 1979         | 85 07                          |
| 65    | 30.50                       | 0.062    | 0.28          | 0.82      | 73                             | 847               | 73   | 20 180              | 2 347.6                    | 1978         | 81 02                          |
| 67    | 49.24                       | 0.067    | 0.22          | 0.87      | 71                             | 834               | 76   | 21 725              | 2 340.0                    | 1978         | 81 06                          |
| 39    | 61.40                       | 0.075    | 0.26          | 0.80      | 106                            | 860               | 79   | 21 940              | 2 423.7                    | 1978         | 79 05 - SUSP 85 02             |
| 190   | 18.48                       | 0.088    | 0.11          | 0.80      | 84                             | 841               | 80   | 29 100              | 2 496.4                    | 1978         | 79 04 - SUSP 84 04             |
| 100   | 45.57                       | 0.060    | 0.10          | 0.81      | 56                             | 835               | 80   | 28 550              | 2 504.4                    | 1978         | 81 12                          |
| 52    | 66.00                       | 0.110    | 0.07          | 0.80      | 71                             | 834               | 78   | 22 000              | 2 400.0                    | 1978         | 85 06                          |
| 55    | 20.00                       | 0.120    | 0.28          | 0.79      | 88                             | 835               | 74   | 20 343              | 2 340.4                    | 1978         | 80 06                          |
| 58    | 46.00                       | 0.120    | 0.18          | 0.84      | 50                             | 842               | 73   | 18 740              | 2 290.3                    | 1979         | 83 01                          |
| 51    | 25.10                       | 0.092    | 0.32          | 0.76      | 100                            | 840               | 73   | 17 940              | 2 285.7                    | 1978         | 81 11                          |
| 192   |                             |          |               |           | 63                             | 848               | 69   | 19 360              | 2 301.2                    | 1980         | 84 07                          |
| 64    | 9.73                        | 0.072    | 0.23          | 0.82      |                                |                   |      |                     |                            |              |                                |
| 128   | 9.74                        | 0.072    | 0.23          | 0.82      |                                |                   |      |                     |                            |              |                                |
| 64    | 7.50                        | 0.080    | 0.45          | 0.85      | 55                             | 875               | 41   | 10 182              | 1 373.5                    | 1982         | 82 07 - SUSP 82 09             |
| 64    | 7.54                        | 0.060    | 0.30          | 0.74      | 62                             | 829               | 85   | 15 950              | 1 916.6                    | 1969         | 82 08 - GPP                    |
| 64    | 22.00                       | 0.080    | 0.16          | 0.74      | 96                             | 830               | 84   | 16 022              | 1 863.1                    | 1967         | 83 09                          |
| 80    | 82.00                       | 0.078    | 0.14          | 0.65      | 160                            | 806               | 91   | 18 730              | 1 993.7                    | 1967         | 79 12 - GPP                    |
| 20    | 30.50                       | 0.070    | 0.20          | 0.65      | 160                            | 806               | 85   | 16 480              | 1 742.5                    | 1968         | 84 12 - GPP                    |
| 128   | 0.92                        | 0.150    | 0.25          | 0.80      | 83                             | 845               | 43   | 12 680              | 1 542.4                    | 1963         | 80 03 - GPP                    |
| 2 500 | 2.70                        | 0.147    | 0.29          | 0.84      | 94                             | 62                | 54   | 13 475              | 1 388.9                    | 1973         | 85 08                          |
| 1 318 | 3.26                        | 0.130    | 0.16          | 0.88      | 41                             | 834               | 49   | 14 270              | 1 204.3                    | 1955         | 83 12 - GPP                    |
| 67    | 6.28                        | 0.057    | 0.20          | 0.72      | 124                            | 815               | 76   | 14 270              | 1 946.5                    | 1958         | 71 12 - ABAND 71 10            |
| 3 120 | 55.44                       | 0.106    | 0.06          | 0.68      | 141                            | 815               | 81   | 17 100              | 2 165.6                    | 1951         | 83 12                          |



TABLE 2-4

| FIELD<br>POOL                           | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>BOUNDARY LAKE SOUTH<br/>085-13W6</b> |                                |          |          |                                |                                |                                |                                |                                      |
| TRIASSIC B                              | 131.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| TRIASSIC C TOTAL                        | 3 010.0                        |          |          | 362.0                          | 324.0                          | 686.0                          | 346.0                          | 340.0                                |
| PRIMARY AREA                            | 312.0                          | 0.12     |          | 37.6                           |                                | 37.6                           |                                |                                      |
| WATER FLOOD AREA                        | 2 700.0                        | 0.12     | 0.12     | 324.0                          | 324.0                          | 648.0                          |                                |                                      |
| TRIASSIC E TOTAL                        | 11 000.0                       |          |          | 1 100.0                        | 2 970.0                        | 4 070.0                        | 2 384.5                        | 1 685.5                              |
| PRIMARY AREA                            | 1 130.0                        | 0.10     |          | 113.0                          |                                | 113.0                          |                                |                                      |
| WATER FLOOD AREA                        | 9 910.0                        | 0.10     | 0.30     | 991.0                          | 2 970.0                        | 3 960.0                        |                                |                                      |
| TRIASSIC F                              | 50.0                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| TRIASSIC H TOTAL                        | 3 210.0                        |          |          | 321.0                          | 497.0                          | 818.0                          | 194.3                          | 623.7                                |
| PRIMARY AREA                            | 450.0                          | 0.10     |          | 45.0                           |                                | 45.0                           |                                |                                      |
| WATER FLOOD AREA                        | 2 760.0                        | 0.10     | 0.18     | 276.0                          | 497.0                          | 773.0                          |                                |                                      |
| TRIASSIC I                              | 475.6                          | 0.10     |          | 47.5                           |                                | 47.5                           | 18.8                           | 28.7                                 |
| CHARLIE LAKE A                          | 231.0                          | 0.10     |          | 23.1                           |                                | 23.1                           | 2.1                            | 21.0                                 |
| BOUNDARY A                              | 289.0                          | 0.10     |          | 28.9                           |                                | 28.9                           | 8.2                            | 20.7                                 |
| <b>BRAEBURN 077-10W6</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| BOUNDARY A                              | 173.0                          | 0.10     |          | 17.3                           |                                | 17.3                           | 6.2                            | 11.1                                 |
| BOUNDARY B                              | 246.0                          | 0.10     |          | 24.6                           |                                | 24.6                           | 5.8                            | 18.8                                 |
| <b>BRANT 019-25W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| TURNER VALLEY A                         | 103.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| <b>BRAZEAU RIVER<br/>046-13W5</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                           | 94.1                           | <0.01    |          | 1.4                            |                                | 1.4                            | 1.4                            |                                      |
| CARDIUM A                               | 193.0                          | 0.10     |          | 19.3                           |                                | 19.3                           | 15.3                           | 4.0                                  |
| CARDIUM B                               | 26.0                           | 0.10     |          | 2.6                            |                                | 2.6                            | 1.2                            | 1.4                                  |
| CARDIUM C                               | 680.0                          | 0.15     |          | 102.0                          |                                | 102.0                          | 35.8                           | 66.2                                 |
| CARDIUM D                               | 89.2                           | 0.10     |          | 8.9                            |                                | 8.9                            | 0.4                            | 8.5                                  |
| CARDIUM F                               | 116.0                          | 0.10     |          | 11.6                           |                                | 11.6                           | 7.9                            | 3.7                                  |
| CARDIUM G                               | 188.0                          | 0.15     |          | 28.2                           |                                | 28.2                           | 5.5                            | 22.7                                 |
| CARDIUM H                               | 112.0                          | 0.10     |          | 11.2                           |                                | 11.2                           | 6.8                            | 4.4                                  |
| CARDIUM I                               | 200.0                          | 0.15     |          | 30.0                           |                                | 30.0                           | 10.3                           | 19.7                                 |
| CARDIUM J                               | 80.0                           | 0.15     |          | 12.0                           |                                | 12.0                           | 6.6                            | 5.4                                  |
| CARDIUM K                               | 117.0                          | 0.12     |          | 14.0                           |                                | 14.0                           | 5.4                            | 8.6                                  |
| VIKING A                                | 465.0                          | 0.15     |          | 70.0                           |                                | 70.0                           | 22.7                           | 47.3                                 |
| VIKING D                                | 1 220.0                        | 0.15     |          | 183.0                          |                                | 183.0                          | 101.3                          | 81.7                                 |
| VIKING E                                | 54.2                           | 0.10     |          | 5.4                            |                                | 5.4                            | 2.9                            | 2.5                                  |
| LOWER MANNVILLE A                       | 121.0                          | 0.10     |          | 12.1                           |                                | 12.1                           | 5.6                            | 3.5                                  |
| LOWER MANNVILLE B                       | 82.5                           | <0.03    |          | 2.4                            |                                | 2.4                            |                                |                                      |
| LOWER MANNVILLE C                       | 736.0                          | 0.10     |          | 73.6                           |                                | 73.6                           | 1.3                            | 72.3                                 |
| LOWER MANNVILLE D                       | 110.0                          | 0.10     |          | 11.0                           |                                | 11.0                           | 0.7                            | 10.3                                 |
| ROCK CREEK B                            | 378.0                          | 0.10     |          | 37.8                           |                                | 37.8                           | 0.8                            | 37.0                                 |
| ROCK CREEK C                            | 506.0                          | 0.10     |          | 50.6                           |                                | 50.6                           |                                | 50.6                                 |
| NISKU A                                 | 5 300.0                        | 0.40     | 0.35     | 2 120.0                        | 1 860.0                        | 3 980.0                        | 2 071.3                        | 1 908.7                              |
| SOLVENT FLOOD                           |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU B                                 | 2 300.0                        | 0.40     | 0.40     | 920.0                          | 920.0                          | 1 840.0                        | 595.7                          | 1 243.3                              |
| SOLVENT FLOOD                           |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU C                                 | 30.0                           | 0.25     |          | 7.5                            |                                | 7.5                            | 4.1                            | 3.4                                  |
| NISKU D                                 | 2 700.0                        | 0.40     | 0.25     | 1 080.0                        | 675.0                          | 1 760.0                        | 649.4                          | 1 110.6                              |
| SOLVENT FLOOD                           |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU E                                 | 2 300.0                        | 0.45     | 0.20     | 1 040.0                        | 460.0                          | 1 500.0                        | 763.4                          | 736.6                                |
| SOLVENT FLOOD                           |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU G                                 | 85.0                           | 0.30     |          | 25.5                           |                                | 25.5                           | 15.0                           | 10.5                                 |
| NISKU H                                 | 80.0                           | 0.25     |          | 20.0                           |                                | 20.0                           | 15.3                           | 4.7                                  |
| NISKU I                                 | 1 060.0                        | <0.35    |          | 369.0                          |                                | 369.0                          | 133.7                          | 235.3                                |
| NISKU L                                 | 575.0                          | 0.30     |          | 173.0                          |                                | 173.0                          | 3.8                            | 169.2                                |
| <b>BRUCE 047-16W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE I                       | 372.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| <b>BUFFALO LAKE 039-21W4</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| D-3                                     | 1 410.0                        | 0.55     |          | 776.0                          |                                | 776.0                          | 688.2                          | 87.8                                 |
| D-3 B                                   | 782.0                          | 0.60     |          | 470.0                          |                                | 470.0                          | 260.4                          | 209.6                                |
| <b>BYEMOOR 034-19W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                                | 144.0                          | 0.05     |          | 7.2                            |                                | 7.2                            | 2.3                            | 4.9                                  |
| <b>CACHE 057-11W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING D                                | 73.5                           | 0.10     |          | 7.4                            |                                | 7.4                            |                                | 7.4                                  |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 65    | 1.83                        | 0.197    | 0.25          | 0.75      | 98                             | 844               | 46   | 13 100              | 1 385.6                    | 1965         | 68 03 - ABAND 67 09            |
| 752   |                             |          |               |           | 110                            | 844               | 48   | 12 640              | 1 306.1                    | 1968         | 82 08 - GPP                    |
| 64    | 3.20                        | 0.210    | 0.91          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 688   | 2.57                        | 0.210    | 0.09          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 3 932 |                             |          |               |           | 92                             | 846               | 47   | 12 860              | 1 330.0                    | 1964         | 84 11                          |
| 384   | 2.68                        | 0.160    | 0.13          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 3 548 | 2.57                        | 0.150    | 0.14          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 64    | 0.61                        | 0.175    | 0.05          | 0.77      | 106                            | 844               | 46   | 12 560              | 1 317.7                    | 1965         | 80 04 - SUSP 79 11             |
| 1 498 |                             |          |               |           | 92                             | 844               | 49   | 12 752              | 1 283.9                    | 1973         | 85 05                          |
| 256   | 1.64                        | 0.160    | 0.15          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 1 242 | 2.07                        | 0.160    | 0.15          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 192   | 2.08                        | 0.175    | 0.18          | 0.83      | 62                             | 844               | 47   | 12 240              | 1 303.9                    | 1977         | 80 11                          |
| 64    | 2.50                        | 0.210    | 0.15          | 0.81      | 36                             | 927               | 42   | 22 719              | 1 291.3                    | 1983         | 84 12                          |
| 192   | 1.44                        | 0.150    | 0.84          | 0.83      | 90                             | 844               | 50   | 12 000              | 1 288.7                    | 1983         | 85 11                          |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 128   | 2.15                        | 0.110    | 0.16          | 0.68      | 110                            | 813               | 75   | 15 078              | 1 787.3                    | 1982         | 85 12                          |
| 64    | 4.00                        | 0.120    | 0.13          | 0.92      | 16                             | 856               | 67   | 14 533              | 1 843.1                    | 1983         | 84 01                          |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 64    | 7.70                        | 0.050    | 0.45          | 0.76      | 108                            | 900               | 64   | 14 690              | 1 469.0                    | 1980         | 80 06 - SUSP 80 05             |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 64    | 1.80                        | 0.170    | 0.46          | 0.89      | 27                             | 869               | 33   | 9 650               | 1 389.3                    | 1978         | 84 12 - SUSP 83 09             |
| 195   | 1.52                        | 0.140    | 0.20          | 0.58      | 164                            | 788               | 71   | 16 550              | 2 371.3                    | 1966         | 83 12 - GPP                    |
| 64    | 1.92                        | 0.046    | 0.20          | 0.58      | 164                            | 788               | 71   | 15 499              | 2 403.9                    | 1980         | 84 02 - GPP                    |
| 740   | 2.28                        | 0.090    | 0.23          | 0.58      | 293                            | 784               | 77   | 27 601              | 2 468.6                    | 1980         | 85 10                          |
| 64    | 3.00                        | 0.101    | 0.20          | 0.58      | 164                            | 826               | 60   | 18 300              | 2 100.9                    | 1980         | 84 02 - GPP                    |
| 64    | 4.41                        | 0.084    | 0.15          | 0.58      | 145                            | 832               | 71   | 27 057              | 2 364.0                    | 1981         | 84 02                          |
| 100   | 4.50                        | 0.090    | 0.20          | 0.58      | 115                            | 783               | 73   | 26 177              | 2 456.8                    | 1981         | 85 12                          |
| 64    | 4.00                        | 0.100    | 0.24          | 0.58      | 120                            | 819               | 71   | 24 627              | 2 364.0                    | 1981         | 84 02                          |
| 103   | 3.00                        | 0.140    | 0.20          | 0.58      | 240                            | 793               | 76   | 25 470              | 2 417.4                    | 1971         | 85 12                          |
| 86    | 2.10                        | 0.110    | 0.30          | 0.58      | 240                            | 793               | 76   | 27 722              | 2 537.7                    | 1973         | 84 12                          |
| 70    | 3.00                        | 0.120    | 0.20          | 0.58      | 245                            | 796               | 76   | 25 895              | 2 296.5                    | 1973         | 85 12                          |
| 256   | 1.82                        | 0.160    | 0.20          | 0.78      | 114                            | 815               | 79   | 25 240              | 2 464.0                    | 1973         | 79 10                          |
| 649   | 2.12                        | 0.170    | 0.26          | 0.71      | 160                            | 833               | 80   | 30 409              | 2 534.0                    | 1973         | 84 12                          |
| 64    | 1.50                        | 0.119    | 0.35          | 0.73      | 158                            | 834               | 81   | 17 975              | 2 521.2                    | 1984         | 85 03                          |
| 65    | 4.57                        | 0.090    | 0.30          | 0.65      | 184                            | 815               | 92   | 39 610              | 3 120.2                    | 1967         | 68 05 - GPP                    |
| 64    | 1.52                        | 0.170    | 0.18          | 0.60      | 220                            | 804               | 99   | 29 950              | 2 737.7                    | 1975         | 78 05 - ABAND 84 07            |
| 64    | 9.75                        | 0.210    | 0.15          | 0.65      | 177                            | 812               | 95   | 32 960              | 3 079.1                    | 1974         | 79 03 - SUSP 84 11             |
| 64    | 2.70                        | 0.150    | 0.35          | 0.65      | 180                            | 803               | 93   | 27 319              | 2 884.2                    | 1967         | 84 10                          |
| 64    | 8.43                        | 0.124    | 0.32          | 0.83      | 65                             | 803               | 72   | 30 251              | 2 776.3                    | 1983         | 84 09                          |
| 64    | 11.30                       | 0.125    | 0.20          | 0.70      | 110                            | 808               | 96   | 23 570              | 2 926.7                    | 1976         | 85 03 - SUSP 85 03             |
| 108   | 73.20                       | 0.110    | 0.10          | 0.68      | 170                            | 820               | 106  | 46 510              | 3 107.4                    | 1978         | 81 01                          |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 90    | 58.80                       | 0.058    | 0.14          | 0.74      | 130                            | 816               | 102  | 32 520              | 3 070.1                    | 1978         | 85 06                          |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 5     | 28.65                       | 0.040    | 0.15          | 0.60      | 195                            | 820               | 107  | 33 233              | 3 101.0                    | 1978         | 83 10 - SUSP 84 06             |
| 157   | 45.10                       | 0.650    | 0.13          | 0.67      | 183                            | 815               | 102  | 34 490              | 3 068.8                    | 1978         | 85 07                          |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 142   | 40.00                       | 0.100    | 0.12          | 0.46      | 354                            | 799               | 108  | 46 200              | 3 200.0                    | 1978         | 81 07                          |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 20    | 22.30                       | 0.045    | 0.23          | 0.55      | 255                            | 813               | 100  | 38 230              | 3 148.5                    | 1978         | 84 12                          |
| 96    | 2.44                        | 0.060    | 0.10          | 0.63      | 189                            | 806               | 105  | 43 780              | 3 133.6                    | 1978         | 82 12                          |
| 112   | 47.10                       | 0.050    | 0.20          | 0.50      | 396                            | 802               | 102  | 33 660              | 3 044.2                    | 1979         | 80 08                          |
| 106   | 15.70                       | 0.123    | 0.17          | 0.34      | 672                            | 788               | 105  | 40 977              | 3 197.5                    | 1982         | 83 11 - SUSP 84 02             |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 64    | 3.40                        | 0.230    | 0.20          | 0.93      | 27                             | 910               | 34   | 6 181               | 865.8                      | 1978         | 83 12 - SUSP 82 02             |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 65    | 28.65                       | 0.101    | 0.09          | 0.83      | 74                             | 892               | 59   | 15 170              | 1 685.2                    | 1961         | 69 03 - GPP                    |
| 43    | 26.80                       | 0.100    | 0.15          | 0.81      | 83                             | 887               | 57   | 14 070              | 1 676.7                    | 1967         | 84 04                          |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 64    | 2.00                        | 0.200    | 0.34          | 0.85      | 62                             | 828               | 42   | 8 079               | 1 166.0                    | 1979         | 83 12                          |
|       |                             |          |               |           |                                |                   |      |                     |                            |              |                                |
| 64    | 1.20                        | 0.230    | 0.48          | 0.80      | 20                             | 888               | 28   | 4 139               | 475.1                      | 1983         | 85 06                          |

TABLE 2-4

| FIELD<br>POOL            | 1                              | 3        |          | 5                              |                                |                                | 6                              | 7                                    | 8 |
|--------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|---|
|                          | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |   |
|                          |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |   |
|                          | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |   |
| CAMPBELL-NAMAD           |                                |          |          |                                |                                |                                |                                |                                      |   |
| 054-25W4                 |                                |          |          |                                |                                |                                |                                |                                      |   |
| CAMPBELL BLAIRMORE A     | 2 860.0                        | 0.09     |          | 257.0                          |                                | 257.0                          | 230.4                          | 26.6                                 |   |
| NAMAD BLAIRMORE C        | 216.0                          | 0.18     |          | 38.9                           |                                | 38.9                           | 34.3                           | 4.6                                  |   |
| NAMAD BLAIRMORE D        | 176.0                          | 0.15     |          | 26.4                           |                                | 26.4                           | 21.5                           | 4.9                                  |   |
| NAMAD BLAIRMORE E        | 2 940.0                        | 0.06     |          | 176.0                          |                                | 176.0                          | 162.9                          | 13.1                                 |   |
| NAMAD BLAIRMORE F        | 3 960.0                        | 0.10     |          | 396.0                          |                                | 396.0                          | 176.8                          | 219.2                                |   |
| BLAIRMORE G              | 262.0                          | <0.01    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |   |
| BLAIRMORE J              | 1 110.0                        | 0.09     |          | 100.0                          |                                | 100.0                          | 40.8                           | 59.2                                 |   |
| BLAIRMORE M              | 109.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |   |
| BLAIRMORE N              | 190.0                          | 0.10     |          | 19.0                           |                                | 19.0                           | 1.0                            | 18.0                                 |   |
| CARBON 029-22W4          |                                |          |          |                                |                                |                                |                                |                                      |   |
| PEKISKD B                | 133.0                          | 0.04     |          | 5.0                            |                                | 5.0                            | 5.0                            |                                      |   |
| PEKISKD E                | 133.0                          | <0.10    |          | 12.5                           |                                | 12.5                           | 10.7                           | 1.8                                  |   |
| CAROLINE 035-06W5        |                                |          |          |                                |                                |                                |                                |                                      |   |
| FIRST WHITE SPECKS A     | 85.2                           | <0.03    |          | 2.1                            |                                | 2.1                            | 2.1                            |                                      |   |
| CARDIUM A                | 191.0                          | <0.02    |          | 2.7                            |                                | 2.7                            | 2.7                            |                                      |   |
| CARDIUM B                | 58.0                           | <0.09    |          | 5.2                            |                                | 5.2                            | 5.2                            |                                      |   |
| CARDIUM C                | 191.0                          | <0.05    |          | 9.5                            |                                | 9.5                            | 6.7                            | 2.8                                  |   |
| CARDIUM D                | 96.5                           | 0.04     |          | 3.9                            |                                | 3.9                            | 3.0                            | 0.9                                  |   |
| CARDIUM E TOTAL          | 8 800.0                        |          |          | 792.0                          | 1 408.0                        | 2 200.0                        | 925.0                          | 1 275.0                              |   |
| SOLVENT FLOOD AREA       | 4 400.0                        | 0.09     | 0.21     | 396.0                          | 924.0                          | 1 320.0                        |                                |                                      |   |
| WATER FLOOD AREA         | 4 400.0                        | 0.09     | 0.11     | 396.0                          | 484.0                          | 880.0                          |                                |                                      |   |
| CARDIUM F                | 530.0                          | 0.09     |          | 47.7                           |                                | 47.7                           | 32.2                           | 15.5                                 |   |
| CARDIUM G                | 101.0                          | 0.06     |          | 5.0                            |                                | 5.0                            | 1.7                            | 4.3                                  |   |
| CARDIUM H                | 65.9                           | 0.06     |          | 4.0                            |                                | 4.0                            | 2.4                            | 1.6                                  |   |
| SECOND WHITE<br>SPECKS A | 164.0                          | 0.02     |          | 3.3                            |                                | 3.3                            | 0.9                            | 2.4                                  |   |
| VIKING A                 | 9 800.0                        | 0.12     |          | 1 180.0                        |                                | 1 180.0                        | 819.2                          | 360.8                                |   |
| VIKING F                 | 157.0                          | 0.10     |          | 15.7                           |                                | 15.7                           | 9.5                            | 6.2                                  |   |
| VIKING G                 | 219.0                          | <0.13    |          | 27.1                           |                                | 27.1                           | 2.1                            | 25.0                                 |   |
| VIKING H                 | 82.2                           | <0.06    |          | 4.8                            |                                | 4.8                            | 4.8                            |                                      |   |
| VIKING J                 | 140.0                          | <0.02    |          | 1.7                            |                                | 1.7                            | 1.7                            |                                      |   |
| VIKING I                 | 157.0                          | 0.05     |          | 7.9                            |                                | 7.9                            | 2.0                            | 5.9                                  |   |
| UPPER MANNVILLE A        | 187.0                          | 0.10     |          | 18.7                           |                                | 18.7                           | 0.4                            | 18.3                                 |   |
| BASAL MANNVILLE W        | 211.0                          | 0.10     |          | 21.1                           |                                | 21.1                           | 0.1                            | 21.0                                 |   |
| ELLERSLIE A              | 153.0                          | 0.15     |          | 23.0                           |                                | 23.0                           | 7.1                            | 15.9                                 |   |
| ELLERSLIE B              | 207.0                          | 0.15     |          | 31.1                           |                                | 31.1                           | 8.5                            | 22.6                                 |   |
| ELKTON B                 | 1 270.0                        | 0.08     |          | 102.0                          |                                | 102.0                          | 72.1                           | 29.9                                 |   |
| ELKTON C                 | 167.0                          | <0.02    |          | 2.9                            |                                | 2.9                            | 2.9                            |                                      |   |
| ELKTON F                 | 361.0                          | 0.05     |          | 18.1                           |                                | 18.1                           | 5.0                            | 13.1                                 |   |
| CARROT CREEK 052-13W5    |                                |          |          |                                |                                |                                |                                |                                      |   |
| CARDIUM A TOTAL          | 798.0                          |          |          | 96.0                           | 85.0                           | 181.0                          | 83.8                           | 97.2                                 |   |
| PRIMARY AREA             | 142.0                          | 0.12     |          | 17.0                           |                                | 17.0                           |                                |                                      |   |
| WATER FLOOD AREA         | 656.0                          | 0.12     | 0.13     | 79.0                           | 85.0                           | 164.0                          |                                |                                      |   |
| CARDIUM B                | 509.0                          | 0.05     |          | 25.5                           | ERSD                           | 25.5                           | 22.7                           | 2.8                                  |   |
| CARDIUM C                | 636.0                          | 0.05     |          | 31.8                           |                                | 31.8                           | 20.1                           | 11.7                                 |   |
| CARDIUM D                | 2 940.0                        | 0.10     |          | 294.0                          |                                | 294.0                          | 90.8                           | 203.2                                |   |
| CARDIUM E                | 433.0                          | 0.10     |          | 43.3                           |                                | 43.3                           | 13.4                           | 29.9                                 |   |
| CARDIUM F                | 1 220.0                        | 0.10     | 0.25     | 122.0                          | 305.0                          | 427.0                          | 102.1                          | 324.9                                |   |
| WATER FLOOD              |                                |          |          |                                |                                |                                |                                |                                      |   |
| CARDIUM G                | 307.0                          | 0.10     |          | 30.7                           |                                | 30.7                           | 9.8                            | 20.9                                 |   |
| CARDIUM H                | 24.8                           | 0.10     |          | 2.5                            |                                | 2.5                            | 0.5                            | 2.0                                  |   |
| CARDIUM I                | 173.0                          | 0.10     |          | 17.3                           |                                | 17.3                           | 13.5                           | 3.8                                  |   |
| CARDIUM K                | 2 360.0                        | 0.10     |          | 236.0                          |                                | 236.0                          | 60.5                           | 175.5                                |   |
| CARDIUM L                | 202.0                          | 0.10     |          | 20.2                           |                                | 20.2                           | 4.5                            | 15.7                                 |   |
| CARDIUM N                | 84.4                           | 0.10     |          | 8.4                            |                                | 8.4                            | 1.4                            | 7.0                                  |   |
| CARDIUM O TOTAL          | 660.0                          |          |          | 66.0                           | 106.0                          | 172.0                          | 13.0                           | 159.0                                |   |
| PRIMARY AREA             | 130.0                          | 0.10     |          | 13.0                           |                                | 13.0                           |                                |                                      |   |
| WATER FLOOD AREA         | 530.0                          | 0.10     | 0.20     | 53.0                           | 106.0                          | 159.0                          |                                |                                      |   |
| CARDIUM R                | 2 330.0                        | 0.15     |          | 350.0                          |                                | 350.0                          | 57.5                           | 292.5                                |   |
| CARDIUM S                | 435.0                          | 0.10     |          | 43.5                           |                                | 43.5                           | 7.7                            | 35.8                                 |   |
| CARDIUM V                | 162.0                          | 0.10     |          | 16.2                           |                                | 16.2                           |                                | 16.2                                 |   |
| CARDIUM X                | 104.0                          | 0.10     |          | 10.4                           |                                | 10.4                           | 0.2                            | 10.2                                 |   |
| LOWER MANNVILLE A        | 301.0                          | 0.01     |          | 3.0                            |                                | 3.0                            | 1.0                            | 2.0                                  |   |
| LOWER MANNVILLE B        | 221.0                          | <0.01    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |   |
| LOWER MANNVILLE C        | 213.0                          | 0.05     |          | 10.7                           |                                | 10.7                           | 2.3                            | 8.4                                  |   |
| LOWER MANNVILLE N        | 73.7                           | 0.10     |          | 7.4                            |                                | 7.4                            | 1.0                            | 6.4                                  |   |
| LOWER MANNVILLE T        | 174.0                          | 0.10     |          | 17.4                           |                                | 17.4                           | 2.1                            | 15.3                                 |   |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 809   | 3.08                        | 0.174    | 0.25          | 0.88      | 41                             | 870               | 47   | 8 450               | 1 132.0                    | 1949         | 85 12 - GPP                    |
| 47    | 3.96                        | 0.180    | 0.29          | 0.91      | 41                             | 870               | 47   | 8 340               | 1 136.0                    | 1953         | 85 12 - GPP                    |
| 32    | 3.66                        | 0.210    | 0.22          | 0.91      | 41                             | 870               | 48   | 8 410               | 1 142.1                    | 1959         | 81 12 - GPP                    |
| 503   | 4.18                        | 0.213    | 0.20          | 0.82      | 41                             | 870               | 46   | 8 270               | 1 115.9                    | 1951         | 67 05 - GPP - MRL              |
| 534   | 4.63                        | 0.220    | 0.20          | 0.91      | 41                             | 870               | 46   | 7 830               | 1 115.9                    | 1966         | 76 12 - GPP                    |
| 64    | 3.08                        | 0.200    | 0.27          | 0.91      | 35                             | 898               | 34   | 6 890               | 1 123.5                    | 1951         | 83 12 - SUSP 83 11             |
| 313   | 2.57                        | 0.220    | 0.30          | 0.90      | 43                             | 892               | 35   | 7 920               | 1 142.4                    | 1977         | 80 12 - GPP                    |
| 64    | 1.80                        | 0.150    | 0.30          | 0.90      | 38                             | 850               | 37   | 5 194               | 1 143.3                    | 1983         | 84 09 - ABAND 84 07            |
| 64    | 4.50                        | 0.150    | 0.50          | 0.88      | 45                             | 864               | 41   | 6 500               | 1 102.8                    | 1984         | 85 04                          |
| 64    | 5.50                        | 0.065    | 0.30          | 0.83      | 69                             | 865               | 53   | 11 610              | 1 574.9                    | 1973         | 85 03 - GPP                    |
| 64    | 5.50                        | 0.065    | 0.30          | 0.83      | 69                             | 865               | 53   | 11 631              | 1 592.8                    | 1978         | 85 03 - GPP                    |
| 65    | 2.44                        | 0.120    | 0.40          | 0.75      | 105                            | 881               | 66   | 22 170              | 2 046.1                    | 1975         | 76 09 - SUSP 76 01             |
| 16    | 12.80                       | 0.151    | 0.20          | 0.76      | 142                            | 797               | 73   | 26 030              | 2 255.5                    | 1961         | 69 05 - ABAND 67 10            |
| 64    | 3.82                        | 0.039    | 0.20          | 0.76      | 142                            | 801               | 66   | 27 240              | 2 362.8                    | 1965         | 83 12 - SUSP 82 03             |
| 129   | 1.95                        | 0.158    | 0.20          | 0.60      | 257                            | 784               | 73   | 27 550              | 2 402.7                    | 1973         | 74 05                          |
| 64    | 2.07                        | 0.140    | 0.20          | 0.65      | 186                            | 811               | 66   | 27 510              | 2 378.4                    | 1975         | 84 12 - GPP                    |
| 9 290 |                             |          |               |           | 352                            | 797               | 73   | 28 880              | 2 513.7                    | 1976         | 84 10                          |
| 5 107 | 1.86                        | 0.103    | 0.15          | 0.53      |                                |                   |      |                     |                            |              |                                |
| 4 183 | 2.27                        | 0.103    | 0.15          | 0.53      |                                |                   |      |                     |                            |              |                                |
| 467   | 3.06                        | 0.080    | 0.20          | 0.58      | 246                            | 801               | 77   | 28 030              | 2 451.9                    | 1976         | 79 12                          |
| 64    | 3.05                        | 0.110    | 0.15          | 0.55      | 312                            | 801               | 69   | 22 090              | 2 429.4                    | 1975         | 78 02 - GPP                    |
| 65    | 1.83                        | 0.120    | 0.20          | 0.58      | 246                            | 801               | 74   | 21 930              | 2 412.2                    | 1975         | 78 04 - GPP                    |
| 64    | 5.00                        | 0.100    | 0.30          | 0.73      | 120                            | 820               | 65   | 20 380              | 2 621.5                    | 1979         | 81 12 - SUSP 83 07             |
| 7 744 | 3.10                        | 0.080    | 0.30          | 0.73      | 89                             | 825               | 89   | 17 000              | 2 663.0                    | 1962         | 80 08                          |
| 98    | 3.05                        | 0.100    | 0.30          | 0.75      | 89                             | 825               | 89   | 16 980              | 2 471.0                    | 1968         | 83 06 - GPP                    |
| 192   | 3.23                        | 0.076    | 0.38          | 0.75      | 139                            | 793               | 77   | 17 580              | 2 716.6                    | 1977         | 82 04 - GPP                    |
| 64    | 4.74                        | 0.070    | 0.47          | 0.73      | 110                            | 724               | 85   | 21 781              | 2 786.9                    | 1979         | 80 06 - ABAND 83 01            |
| 64    | 7.02                        | 0.074    | 0.37          | 0.67      | 200                            | 788               | 60   | 17 323              | 2 714.5                    | 1978         | 83 12 - ABAND 80 11            |
| 64    | 6.50                        | 0.070    | 0.25          | 0.72      | 125                            | 849               | 60   | 17 000              | 2 677.5                    | 1980         | 83 09 - GPP                    |
| 64    | 4.00                        | 0.130    | 0.12          | 0.64      | 181                            | 853               | 81   | 27 724              | 2 718.9                    | 1981         | 83 03 - SUSP 85 08             |
| 64    | 5.00                        | 0.110    | 0.22          | 0.77      | 78                             | 811               | 110  | 14 500              | 2 839.5                    | 1980         | 82 06 - SUSP 83 11             |
| 64    | 5.82                        | 0.073    | 0.25          | 0.75      | 105                            | 830               | 88   | 28 698              | 2 800.6                    | 1981         | 84 12                          |
| 64    | 4.90                        | 0.100    | 0.12          | 0.75      | 125                            | 832               | 92   | 22 557              | 2 916.6                    | 1981         | 84 12                          |
| 228   | 12.80                       | 0.070    | 0.15          | 0.73      | 131                            | 844               | 72   | 23 090              | 2 652.7                    | 1963         | 76 12                          |
| 65    | 6.19                        | 0.067    | 0.15          | 0.73      | 131                            | 844               | 76   | 23 340              | 2 639.6                    | 1964         | 67 08 - ABAND 68 10            |
| 64    | 11.99                       | 0.070    | 0.08          | 0.73      | 131                            | 844               | 69   | 24 845              | 2 653.2                    | 1980         | 84 12 - GPP                    |
| 371   |                             |          |               |           | 53                             | 834               | 57   | 10 310              | 1 661.2                    | 1963         | 85 11                          |
| 64    | 3.40                        | 0.106    | 0.25          | 0.82      |                                |                   |      |                     |                            |              |                                |
| 307   | 5.08                        | 0.066    | 0.25          | 0.85      |                                |                   |      |                     |                            |              |                                |
| 404   | 2.99                        | 0.065    | 0.20          | 0.81      | 62                             | 829               | 61   | 10 480              | 1 661.2                    | 1966         | 82 12 - GPP                    |
| 259   | 3.96                        | 0.080    | 0.10          | 0.86      | 57                             | 849               | 70   | 9 980               | 1 614.2                    | 1973         | 75 12 - GPP                    |
| 632   | 7.07                        | 0.090    | 0.14          | 0.85      | 65                             | 844               | 52   | 12 974              | 1 596.4                    | 1973         | 85 09                          |
| 128   | 7.54                        | 0.060    | 0.13          | 0.86      | 78                             | 835               | 57   | 10 539              | 1 640.4                    | 1980         | 85 05                          |
| 384   | 4.72                        | 0.090    | 0.11          | 0.84      | 65                             | 854               | 56   | 10 141              | 1 602.3                    | 1980         | 85 09                          |
| 128   | 5.04                        | 0.070    | 0.15          | 0.80      | 65                             | 852               | 52   | 10 394              | 1 646.2                    | 1979         | 85 05                          |
| 64    | 1.20                        | 0.070    | 0.40          | 0.77      | 63                             | 840               | 57   | 8 997               | 1 605.4                    | 1979         | 81 03 - GPP                    |
| 64    | 4.99                        | 0.071    | 0.10          | 0.86      |                                |                   |      | 7 236               | 1 510.0                    | 1967         | 84 12                          |
| 512   | 8.58                        | 0.080    | 0.21          | 0.85      | 50                             | 838               | 68   | 10 889              | 1 769.2                    | 1983         | 85 05                          |
| 64    | 3.60                        | 0.120    | 0.11          | 0.82      | 61                             | 833               | 58   | 10 101              | 1 622.3                    | 1979         | 83 10                          |
| 64    | 2.65                        | 0.065    | 0.11          | 0.86      | 78                             | 835               | 57   | 8 710               | 1 641.6                    | 1981         | 83 11 - GPP                    |
| 239   |                             |          |               |           | 65                             | 742               | 56   | 9 894               | 1 576.8                    | 1983         | 85 08                          |
| 64    | 2.80                        | 0.097    | 0.11          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 175   | 4.18                        | 0.097    | 0.11          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 700   | 5.13                        | 0.090    | 0.15          | 0.85      | 56                             | 845               | 59   | 9 894               | 1 622.0                    | 1983         | 85 08                          |
| 192   | 3.74                        | 0.080    | 0.11          | 0.85      | 65                             | 836               | 56   | 12 335              | 1 520.4                    | 1984         | 85 11                          |
| 64    | 3.00                        | 0.110    | 0.10          | 0.85      | 50                             | 838               | 68   | 9 501               | 1 628.4                    | 1984         | 84 12                          |
| 64    | 2.50                        | 0.090    | 0.15          | 0.85      | 53                             | 844               | 57   | 8 400               | 1 618.2                    | 1984         | 85 01                          |
| 64    | 6.40                        | 0.150    | 0.30          | 0.70      | 135                            | 835               | 62   | 15 560              | 2 182.5                    | 1978         | 82 12 - GPP                    |
| 64    | 6.40                        | 0.140    | 0.45          | 0.70      | 125                            | 842               | 82   | 17 910              | 2 175.2                    | 1979         | 85 09 - SUSP 84 05             |
| 64    | 6.04                        | 0.120    | 0.35          | 0.70      | 168                            | 814               | 63   | 16 517              | 2 223.0                    | 1979         | 83 12 - GPP                    |
| 64    | 2.30                        | 0.130    | 0.45          | 0.70      | 130                            | 884               | 86   | 17 794              | 2 180.9                    | 1980         | 82 03 - GPP                    |
| 64    | 5.00                        | 0.120    | 0.38          | 0.73      | 110                            | 846               | 59   | 15 978              | 2 129.3                    | 1981         | 82 02                          |

TABLE 2-4

| FIELD<br>POOL                                | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>CARROT CREEK 052-13W5<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE M<br>JURASSIC O&P            | 4 600.0                        | 0.08     |          | 368.0                          |                                | 368.0                          | 108.7                          | 259.3                                |
| JURASSIC A                                   | 213.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| JURASSIC X                                   | 254.0                          | 0.10     |          | 25.4                           |                                | 25.4                           |                                | 25.4                                 |
| JURASSIC AA                                  | 134.0                          | 0.10     |          | 13.4                           |                                | 13.4                           | 0.9                            | 12.5                                 |
| <b>CARSON CREEK NORTH<br/>062-12W5</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| BEAVERHILL LAKE A<br>TOTAL                   | 15 100.0                       |          |          | 2 260.0                        | 4 530.0                        | 6 790.0                        | 5 579.4                        | 1 210.6                              |
| PRIMARY AREA                                 | 36.7                           | 0.10     |          | 3.7                            |                                | 3.7                            |                                |                                      |
| WATER FLOOD AREA                             | 15 100.0                       | 0.15     | 0.30     | 2 260.0                        | 4 530.0                        | 6 790.0                        |                                |                                      |
| BEAVERHILL LAKE B<br>WATER FLOOD             | 42 500.0                       | 0.16     | 0.31     | 6 850.0                        | 13 200.0                       | 20 100.0                       | 15 104.6                       | 4 995.4                              |
| <b>CARSTAIRS 030-02W5</b>                    |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                                    | 240.0                          | 0.10     |          | 24.0                           |                                | 24.0                           | 1.3                            | 22.7                                 |
| CARDIUM B                                    | 23.3                           | 0.10     |          | 2.3                            |                                | 2.3                            | 0.2                            | 2.1                                  |
| BLACKSTONE A                                 | 129.0                          | 0.10     |          | 12.9                           |                                | 12.9                           | 0.1                            | 12.8                                 |
| VIKING B                                     | 328.0                          | 0.10     |          | 32.8                           |                                | 32.8                           | 6.6                            | 26.2                                 |
| VIKING C                                     | 131.0                          | 0.10     |          | 13.1                           |                                | 13.1                           | 1.3                            | 11.8                                 |
| <b>CAVALIER 024-23W4</b>                     |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                                | 449.0                          | 0.10     |          | 44.9                           |                                | 44.9                           | 8.3                            | 36.6                                 |
| <b>CESSFORD 025-13W4</b>                     |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC T &<br>MANNVILLE HH              | 191.0                          | 0.03     |          | 5.7                            |                                | 5.7                            | 2.0                            | 3.7                                  |
| BANFF B                                      | 6 800.0                        | 0.10     |          | 680.0                          |                                | 680.0                          | 151.8                          | 528.2                                |
| <b>CHAIN 033-17W4</b>                        |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                                     | 49.5                           | 0.10     |          | 5.0                            |                                | 5.0                            |                                | 5.0                                  |
| VIKING D                                     | 429.0                          | 0.12     |          | 51.5                           |                                | 51.5                           | 31.9                           | 19.6                                 |
| <b>CHAMBERLAIN 052-23W4</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE                                    | 509.0                          | <0.05    |          | 24.3                           |                                | 24.3                           | 24.3                           |                                      |
| <b>CHERHILL 056-05W5</b>                     |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING C                                     | 101.0                          | 0.15     |          | 15.2                           |                                | 15.2                           | 10.5                           | 4.7                                  |
| VIKING D                                     | 124.0                          | <0.01    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| NORDEGG A                                    | 439.0                          | 0.10     |          | 43.9                           |                                | 43.9                           | 10.8                           | 33.1                                 |
| JURASSIC A                                   | 480.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| JURASSIC B                                   | 351.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| BANFF A TOTAL                                | 3 000.0                        |          |          | 599.0                          | 500.0                          | 1 100.0                        | 437.4                          | 662.6                                |
| PRIMARY AREA                                 | 215.0                          | 0.20     |          | 43.0                           |                                | 43.0                           |                                |                                      |
| WATER FLOOD AREA                             | 2 780.0                        | 0.20     | 0.18     | 556.0                          | 500.0                          | 1 060.0                        |                                |                                      |
| BANFF D TOTAL                                | 1 200.0                        |          |          | 181.0                          | 166.0                          | 347.0                          | 86.8                           | 260.2                                |
| PRIMARY AREA                                 | 373.0                          | 0.15     |          | 56.0                           |                                | 56.0                           |                                |                                      |
| WATER FLOOD AREA                             | 831.0                          | 0.15     | 0.20     | 125.0                          | 166.0                          | 291.0                          |                                |                                      |
| BANFF G                                      | 1 020.0                        | 0.03     |          | 30.6                           |                                | 30.6                           | 9.9                            | 20.7                                 |
| BANFF H                                      | 688.0                          | 0.10     |          | 68.8                           |                                | 68.8                           | 18.5                           | 50.3                                 |
| BANFF I                                      | 1 880.0                        | 0.40     |          | 752.0                          |                                | 752.0                          | 708.6                          | 43.4                                 |
| BANFF J                                      | 109.0                          | 0.20     |          | 22.0                           |                                | 22.0                           | 5.2                            | 16.8                                 |
| BANFF K                                      | 217.0                          | 0.20     |          | 43.0                           |                                | 43.0                           | 4.2                            | 38.8                                 |
| BANFF L                                      | 383.0                          | 0.20     |          | 76.6                           |                                | 76.6                           | 31.8                           | 44.8                                 |
| BANFF M                                      | 2 280.0                        | 0.20     |          | 456.0                          |                                | 456.0                          | 84.4                           | 371.6                                |
| BANFF N                                      | 222.0                          | 0.20     |          | 44.4                           |                                | 44.4                           | 8.8                            | 35.6                                 |
| BANFF O                                      | 351.0                          | 0.15     |          | 52.7                           |                                | 52.7                           | 5.5                            | 47.2                                 |
| BANFF P                                      | 327.0                          | 0.10     |          | 32.7                           |                                | 32.7                           | 0.1                            | 32.6                                 |
| <b>CHICKADEE 061-16W5</b>                    |                                |          |          |                                |                                |                                |                                |                                      |
| GETHING D                                    | 88.1                           | 0.10     |          | 8.8                            |                                | 8.8                            | 0.2                            | 8.6                                  |
| <b>CHIGWELL 041-24W4</b>                     |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING B TOTAL                               | 2 370.0                        |          |          | 284.0                          | 127.0                          | 411.0                          | 222.7                          | 188.3                                |
| PRIMARY AREA                                 | 1 310.0                        | 0.12     |          | 157.0                          |                                | 157.0                          |                                |                                      |
| WATER FLOOD AREA                             | 1 060.0                        | 0.12     | 0.12     | 127.0                          | 127.0                          | 254.0                          |                                |                                      |
| VIKING D                                     | 89.5                           | 0.10     |          | 9.0                            |                                | 9.0                            | 3.9                            | 5.1                                  |
| VIKING E                                     | 8 150.0                        | 0.10     |          | 815.0                          |                                | 815.0                          | 76.4                           | 738.6                                |
| VIKING F                                     | 226.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| MANNVILLE G                                  | 134.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 1 054 | 8.61                        | 0.110    | 0.36          | 0.72      | 53                             | 834               | 57   | 16 999              | 2 127.4                    | 1963         | 84 04                          |
| 64    | 7.00                        | 0.100    | 0.35          | 0.73      | 125                            | 850               | 60   | 17 000              | 2 187.5                    | 1979         | 83 12 - ABAND 80 02            |
| 64    | 7.50                        | 0.130    | 0.45          | 0.74      | 115                            | 864               | 60   | 16 853              | 2 192.8                    | 1984         | 85 03                          |
| 64    | 5.70                        | 0.090    | 0.45          | 0.74      | 115                            | 864               | 60   | 16 971              | 2 207.3                    | 1984         | 85 03                          |
| 4 173 |                             |          |               |           | 286                            | 806               | 85   | 25 680              | 2 631.0                    | 1959         | 82 12                          |
| 64    | 1.50                        | 0.080    | 0.13          | 0.55      |                                |                   |      |                     |                            |              |                                |
| 4 109 | 9.60                        | 0.080    | 0.13          | 0.55      |                                |                   |      |                     |                            |              |                                |
| 5 453 | 14.68                       | 0.089    | 0.16          | 0.60      | 274                            | 806               | 88   | 25 880              | 2 662.7                    | 1958         | 80 02                          |
| 64    | 6.00                        | 0.130    | 0.35          | 0.74      | 119                            | 836               | 66   | 22 297              | 1 981.0                    | 1983         | 84 01                          |
| 64    | 1.00                        | 0.070    | 0.35          | 0.80      | 82                             | 854               | 59   | 16 512              | 1 956.5                    | 1983         | 84 10 - SUSP 84 08             |
| 64    | 4.50                        | 0.080    | 0.30          | 0.80      | 85                             | 844               | 61   | 20 904              | 2 037.0                    | 1983         | 85 03 - SUSP 85 06             |
| 64    | 7.30                        | 0.130    | 0.35          | 0.83      | 68                             | 835               | 71   | 13 671              | 2 207.9                    | 1958         | 83 10                          |
| 64    | 3.00                        | 0.150    | 0.45          | 0.83      | 68                             | 835               | 71   | 12 017              | 2 175.0                    | 1980         | 84 04 - GPP                    |
| 128   | 2.82                        | 0.190    | 0.21          | 0.83      | 70                             | 871               | 49   | 11 806              | 1 586.3                    | 1979         | 83 06 - GPP                    |
| 64    | 5.00                        | 0.140    | 0.48          | 0.82      | 70                             | 863               | 47   | 9 062               | 1 274.8                    | 1981         | 85 12                          |
| 2 501 | 3.92                        | 0.145    | 0.45          | 0.87      | 46                             | 877               | 40   | 9 988               | 1 282.1                    | 1973         | 82 07                          |
| 64    | 1.00                        | 0.150    | 0.40          | 0.86      | 50                             | 838               | 42   | 6 200               | 1 067.3                    | 1984         | 85 10                          |
| 555   | 0.72                        | 0.190    | 0.34          | 0.86      | 62                             | 834               | 34   | 8 210               | 1 121.7                    | 1977         | 84 12                          |
| 45    | 7.53                        | 0.252    | 0.32          | 0.88      | 41                             | 892               | 46   | 8 210               | 1 126.5                    | 1952         | 64 04 - ABAND 70 09            |
| 64    | 1.24                        | 0.190    | 0.20          | 0.84      | 62                             | 844               | 56   | 8 140               | 1 140.6                    | 1974         | 83 12                          |
| 64    | 1.86                        | 0.160    | 0.25          | 0.87      | 55                             | 849               | 38   | 7 515               | 1 157.3                    | 1977         | 83 12 - SUSP 82 03             |
| 128   | 3.80                        | 0.170    | 0.39          | 0.87      | 56                             | 900               | 38   | 10 894              | 1 343.0                    | 1973         | 82 07                          |
| 64    | 7.60                        | 0.170    | 0.30          | 0.83      | 71                             | 894               | 43   | 10 538              | 1 374.8                    | 1980         | 85 12 - SUSP 83 10             |
| 64    | 6.19                        | 0.180    | 0.40          | 0.82      | 62                             | 901               | 50   | 10 855              | 1 357.0                    | 1979         | 83 12 - SUSP 82 07             |
| 573   |                             |          |               |           | 103                            | 865               | 44   | 11 310              | 1 322.6                    | 1966         | 84 08                          |
| 64    | 13.20                       | 0.050    | 0.33          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 509   | 7.33                        | 0.140    | 0.30          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 209   |                             |          |               |           | 73                             | 865               | 47   | 10 791              | 1 338.7                    | 1979         | 82 09                          |
| 32    | 19.50                       | 0.121    | 0.35          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 177   | 7.85                        | 0.121    | 0.35          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 64    | 14.10                       | 0.200    | 0.35          | 0.87      | 53                             | 907               | 46   | 11 055              | 1 369.7                    | 1980         | 83 12 - GPP                    |
| 64    | 12.00                       | 0.120    | 0.10          | 0.83      | 68                             | 825               | 41   | 10 957              | 1 374.0                    | 1979         | 80 04                          |
| 602   | 4.19                        | 0.140    | 0.30          | 0.76      |                                |                   |      | 11 187              | 1 315.9                    | 1980         | 85 12                          |
| 32    | 4.57                        | 0.140    | 0.30          | 0.76      |                                |                   |      | 10 035              | 1 345.9                    | 1982         | 82 09 - SUSP 84 07             |
| 32    | 9.09                        | 0.140    | 0.30          | 0.76      |                                |                   |      | 11 365              | 1 331.9                    | 1982         | 82 09                          |
| 128   | 5.48                        | 0.100    | 0.35          | 0.84      | 66                             | 870               | 50   | 11 063              | 1 325.1                    | 1976         | 82 12                          |
| 192   | 12.90                       | 0.160    | 0.29          | 0.81      | 82                             | 863               | 46   | 10 937              | 1 324.2                    | 1982         | 85 03                          |
| 32    | 9.40                        | 0.130    | 0.34          | 0.86      | 48                             | 910               | 64   | 11 200              | 1 329.4                    | 1982         | 83 04                          |
| 64    | 10.10                       | 0.100    | 0.33          | 0.81      | 82                             | 863               | 46   | 11 080              | 1 327.0                    | 1983         | 83 10                          |
| 64    | 3.70                        | 0.240    | 0.33          | 0.86      | 48                             | 892               | 64   | 10 680              | 1 351.2                    | 1984         | 84 12                          |
| 64    | 2.73                        | 0.120    | 0.40          | 0.70      | 156                            | 824               | 82   | 13 613              | 1 830.4                    | 1980         | 81 11 - GPP                    |
| 1 379 |                             |          |               |           | 50                             | 844               | 46   | 7 830               | 1 425.9                    | 1962         | 85 09                          |
| 800   | 2.34                        | 0.130    | 0.40          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 579   | 2.60                        | 0.130    | 0.40          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 64    | 3.20                        | 0.120    | 0.60          | 0.91      | 34                             | 830               | 58   | 7 975               | 1 464.6                    | 1982         | 83 07                          |
| 3 376 | 3.24                        | 0.130    | 0.37          | 0.91      | 34                             | 858               | 58   | 8 000               | 1 403.3                    | 1983         | 85 10                          |
| 64    | 5.70                        | 0.120    | 0.40          | 0.86      | 48                             | 817               | 57   | 5 482               | 1 420.9                    | 1983         | 85 08 - SUSP 84 07             |
| 65    | 1.83                        | 0.150    | 0.15          | 0.89      | 39                             | 910               | 51   | 12 410              | 1 648.7                    | 1977         | 77 06 - ABAND 78 05            |



TABLE 2-4

| FIELD<br>POOL                            | 1                              | 3        |          | 5                              |                                |                                | 6                              | 7                                    | 8 |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|---|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |   |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |   |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |   |
| <b>CHIGWELL 041-24W4<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |   |
| MANNVILLE H                              | 289.0                          | 0.10     |          | 28.9                           |                                | 28.9                           | 9.5                            | 19.4                                 |   |
| MANNVILLE I                              | 169.0                          | 0.02     |          | 3.4                            |                                | 3.4                            | 2.0                            | 1.4                                  |   |
| MANN E & UP MANN A                       | 8 290.0                        | 0.07     |          | 580.0                          |                                | 580.0                          | 253.0                          | 327.0                                |   |
| UPPER MANNVILLE B                        | 275.0                          | 0.03     |          | 8.3                            |                                | 8.3                            | 4.1                            | 4.2                                  |   |
| UPPER MANNVILLE C                        | 261.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |   |
| GLAUCONITIC A                            | 114.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |   |
| D-2 A                                    | 473.0                          | 0.20     |          | 94.6                           |                                | 94.6                           | 49.9                           | 44.7                                 |   |
| D-2 B                                    | 116.0                          | <0.07    |          | 7.1                            |                                | 7.1                            | 7.1                            |                                      |   |
| D-2 C                                    | 499.0                          | 0.12     |          | 59.9                           |                                | 59.9                           | 46.1                           | 13.8                                 |   |
| D-2 D                                    | 98.5                           | <0.03    |          | 2.0                            |                                | 2.0                            | 2.0                            |                                      |   |
| D-3 A                                    | 108.0                          | <0.05    |          | 4.8                            |                                | 4.8                            | 4.8                            |                                      |   |
| D-3 B                                    | 766.0                          | 0.35     |          | 268.0                          |                                | 268.0                          | 152.8                          | 115.2                                |   |
| D-3 C                                    | 254.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |   |
| D-3 D                                    | 274.0                          | 0.20     |          | 54.8                           |                                | 54.8                           | 10.2                           | 44.6                                 |   |
| D-3 E                                    | 416.0                          | 0.35     |          | 146.0                          |                                | 146.0                          | 21.6                           | 124.4                                |   |
| <b>CHIGWELL NORTH<br/>042-24W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |   |
| D-3 A                                    | 110.0                          | 0.10     |          | 11.0                           |                                | 11.0                           | 0.5                            | 10.5                                 |   |
| <b>CLARESHOLM 013-26W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |   |
| RUNDLE A                                 | 1 920.0                        | 0.04     |          | 76.8                           |                                | 76.8                           | 48.9                           | 27.9                                 |   |
| RUNDLE B                                 | 1 340.0                        | 0.03     |          | 40.2                           |                                | 40.2                           | 28.1                           | 12.1                                 |   |
| RUNDLE C                                 | 56.1                           | 0.10     |          | 5.6                            |                                | 5.6                            | 4.2                            | 1.4                                  |   |
| <b>CLIVE 040-24W4</b>                    |                                |          |          |                                |                                |                                |                                |                                      |   |
| GLAUCONITIC A                            | 195.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |   |
| GLAUCONITIC B                            | 64.0                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |   |
| D-2 A TOTAL                              | 7 620.0                        |          |          | 2 580.0                        | 886.0                          | 3 470.0                        | 2 125.8                        | 1 344.2                              |   |
| PRIMARY AREA                             | 243.0                          | 0.02     |          | 4.9                            |                                | 4.9                            |                                |                                      |   |
| WATER FLOOD AREA                         | 7 380.0                        | 0.35     | 0.12     | 2 580.0                        | 886.0                          | 3 470.0                        |                                |                                      |   |
| D-2 B TOTAL                              | 692.0                          |          |          | 242.0                          | 50.9                           | 293.0                          | 161.7                          | 131.3                                |   |
| PRIMARY AREA                             | 183.0                          | 0.35     |          | 64.1                           |                                | 64.1                           |                                |                                      |   |
| WATER FLOOD AREA                         | 509.0                          | 0.35     | 0.10     | 178.0                          | 50.9                           | 229.0                          |                                |                                      |   |
| D-2 C                                    | 34.8                           | <0.07    |          | 2.2                            |                                | 2.2                            | 2.2                            |                                      |   |
| D-3 A TOTAL                              | 13 400.0                       |          |          | 5 020.0                        | 1 970.0                        | 6 990.0                        | 4 871.2                        | 2 118.8                              |   |
| PRIMARY AREA                             | 1 060.0                        | 0.08     |          | 84.8                           |                                | 84.8                           |                                |                                      |   |
| WATER FLOOD AREA                         | 12 300.0                       | <0.50    | 0.16     | 4 940.0                        | 1 970.0                        | 6 910.0                        |                                |                                      |   |
| <b>CLOVER 061-17W5</b>                   |                                |          |          |                                |                                |                                |                                |                                      |   |
| GETHING A                                | 60.5                           | 0.01     |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |   |
| <b>COSWAY 030-26W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |   |
| RUNDLE A                                 | 91.3                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |   |
| <b>COUTTS 001-16W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |   |
| MOULTON A TOTAL                          | 2 060.0                        |          |          | 411.0                          | 262.0                          | 673.0                          | 451.5                          | 221.5                                |   |
| PRIMARY AREA                             | 746.0                          | 0.20     |          | 149.0                          |                                | 149.0                          |                                |                                      |   |
| WATER FLOOD AREA                         | 1 310.0                        | 0.20     | 0.20     | 262.0                          | 262.0                          | 524.0                          |                                |                                      |   |
| MOULTON B                                | 89.0                           | 0.02     |          | 1.8                            |                                | 1.8                            | 0.7                            | 1.1                                  |   |
| MOULTON C                                | 1 560.0                        | 0.03     |          | 46.8                           |                                | 46.8                           | 22.1                           | 24.7                                 |   |
| <b>COYOTE 029-15W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |   |
| GLAUCONITIC G                            | 94.1                           | 0.10     |          | 9.4                            |                                | 9.4                            | 0.1                            | 9.3                                  |   |
| <b>CRAIGMYLE 032-17W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |   |
| BANFF A                                  | 217.0                          | 0.10     |          | 21.7                           |                                | 21.7                           | 2.7                            | 19.0                                 |   |
| <b>CRANBERRY 026-01W5</b>                |                                |          |          |                                |                                |                                |                                |                                      |   |
| GILWOOD A                                | 96.1                           | 0.20     |          | 19.2                           |                                | 19.2                           | 8.8                            | 10.4                                 |   |
| <b>CROSSFIELD 026-01W5</b>               |                                |          |          |                                |                                |                                |                                |                                      |   |
| CARDIUM A TOTAL                          | 25 700.0                       |          |          | 1 540.0                        | 1 490.0                        | 3 030.0                        | 2 841.7                        | 188.3                                |   |
| PRIMARY AREA                             | 795.0                          | 0.06     |          | 47.7                           |                                | 47.7                           |                                |                                      |   |
| WATER FLOOD AREA                         | 24 900.0                       | 0.06     | 0.06     | 1 490.0                        | 1 490.0                        | 2 990.0                        |                                |                                      |   |
| CARDIUM B                                | 391.0                          | 0.10     |          | 39.1                           |                                | 39.1                           | 19.1                           | 20.0                                 |   |
| CARDIUM C                                | 53.7                           | 0.10     |          | 5.4                            |                                | 5.4                            | 1.1                            | 4.3                                  |   |
| JUMPING POUND A                          | 119.0                          | 0.14     |          | 16.7                           |                                | 16.7                           | 11.6                           | 5.1                                  |   |
| SECOND WHITE                             | 207.0                          | 0.15     |          | 31.0                           |                                | 31.0                           | 22.4                           | 8.6                                  |   |
| SPECKS A                                 |                                |          |          |                                |                                |                                |                                |                                      |   |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64     | 4.00                        | 0.170    | 0.20          | 0.83      | 59                             | 915               | 63   | 12 392              | 1 595.1                    | 1978         | 78 10                          |
| 64     | 2.20                        | 0.170    | 0.15          | 0.83      | 58                             | 850               | 63   | 3 310               | 1 627.3                    | 1978         | 82 12 - SUSP 85 09             |
| 5 376  | 1.51                        | 0.150    | 0.18          | 0.83      | 33                             | 921               | 48   | 13 450              | 1 581.6                    | 1976         | 83 02 - GPP                    |
| 65     | 3.35                        | 0.180    | 0.15          | 0.83      | 59                             | 915               | 63   | 13 410              | 1 602.3                    | 1977         | 80 12 - GPP                    |
| 64     | 4.00                        | 0.150    | 0.20          | 0.85      | 80                             | 700               | 60   | 7 660               | 1 443.0                    | 1979         | 80 06 - ABAND 81 01            |
| 64     | 2.00                        | 0.150    | 0.30          | 0.85      | 54                             | 899               | 62   | 14 877              | 1 539.5                    | 1980         | 83 12 - SUSP 81 12             |
| 117    | 10.63                       | 0.065    | 0.22          | 0.75      | 106                            | 829               | 70   | 15 860              | 1 848.0                    | 1955         | 84 01 - GPP                    |
| 65     | 2.59                        | 0.140    | 0.42          | 0.85      | 106                            | 829               | 71   | 16 890              | 1 882.4                    | 1959         | 73 02 - ABAND 72 05            |
| 404    | 4.57                        | 0.045    | 0.25          | 0.80      | 83                             | 829               | 72   | 16 930              | 1 871.8                    | 1968         | 83 12 - GPP                    |
| 65     | 3.96                        | 0.060    | 0.20          | 0.80      | 83                             | 829               | 57   | 14 070              | 1 872.7                    | 1974         | 75 08 - SUSP 77 07             |
| 128    | 3.02                        | 0.050    | 0.19          | 0.69      | 147                            | 820               | 60   | 17 380              | 1 943.7                    | 1964         | 83 09 - ABAND 83 09            |
| 128    | 12.16                       | 0.080    | 0.18          | 0.75      | 105                            | 855               | 63   | 16 840              | 1 938.5                    | 1968         | 84 12 - GPP                    |
| 64     | 5.50                        | 0.110    | 0.10          | 0.73      | 110                            | 844               | 65   | 19 125              | 2 131.3                    | 1981         | 82 03 - SUSP 81 12             |
| 64     | 14.00                       | 0.048    | 0.15          | 0.75      | 100                            | 836               | 67   | 14 250              | 1 909.0                    | 1983         | 83 01                          |
| 64     | 14.50                       | 0.075    | 0.18          | 0.72      | 129                            | 834               | 71   | 14 117              | 1 907.8                    | 1984         | 84 11                          |
| 64     | 4.50                        | 0.070    | 0.25          | 0.73      | 120                            | 844               | 59   | 13 653              | 1 843.3                    | 1980         | 82 03 - SUSP 84 07             |
| 129    | 28.96                       | 0.086    | 0.16          | 0.71      | 131                            | 844               | 55   | 19 700              | 2 065.9                    | 1972         | 78 12 - GPP                    |
| 194    | 14.11                       | 0.081    | 0.15          | 0.71      | 131                            | 844               | 54   | 19 650              | 2 065.6                    | 1972         | 78 12                          |
| 65     | 3.05                        | 0.060    | 0.35          | 0.73      | 128                            | 849               | 60   | 20 540              | 2 068.1                    | 1968         | 73 01 - GPP                    |
| 64     | 4.00                        | 0.130    | 0.35          | 0.90      | 35                             | 881               | 62   | 7 240               | 1 585.1                    | 1978         | 79 01 - ABAND 79 09            |
| 64     | 1.40                        | 0.120    | 0.30          | 0.85      | 58                             | 881               | 62   | 11 370              | 1 578.7                    | 1978         | 83 12 - SUSP 79 03             |
| 3 316  |                             |          |               |           | 148                            | 820               | 69   | 17 000              | 1 868.4                    | 1951         | 85 07                          |
| 3 216  | 9.00                        | 0.049    | 0.20          | 0.69      |                                |                   |      |                     |                            |              |                                |
| 367    | 3.81                        | 0.050    | 0.20          | 0.69      |                                |                   |      |                     |                            |              |                                |
| 64     | 5.90                        | 0.080    | 0.12          | 0.69      | 148                            | 820               | 68   | 16 410              | 1 841.4                    | 1966         | 83 07                          |
| 303    | 6.92                        | 0.044    | 0.20          | 0.69      |                                |                   |      |                     |                            |              |                                |
| 65     | 1.22                        | 0.080    | 0.20          | 0.69      | 142                            | 820               | 67   | 17 070              | 1 885.4                    | 1965         | 70 05 - ABAND 67 01            |
| 4 546  |                             |          |               |           | 155                            | 825               | 66   | 17 510              | 1 898.0                    | 1952         | 84 12                          |
| 339    | 10.30                       | 0.055    | 0.20          | 0.69      |                                |                   |      |                     |                            |              |                                |
| 4 207  | 9.63                        | 0.055    | 0.20          | 0.69      |                                |                   |      |                     |                            |              |                                |
| 64     | 1.50                        | 0.150    | 0.40          | 0.70      | 156                            | 824               | 82   | 15 461              | 2 018.0                    | 1980         | 83 12 - SUSP 83 12             |
| 64     | 5.80                        | 0.050    | 0.40          | 0.82      | 72                             | 869               | 59   | 11 933              | 1 753.1                    | 1978         | 79 05 - SUSP 79 06             |
| 418    |                             |          |               |           | 55                             | 825               | 29   | 6 520               | 783.3                      | 1966         | 82 08                          |
| 192    | 3.74                        | 0.170    | 0.29          | 0.86      |                                |                   |      |                     |                            |              |                                |
| 226    | 4.69                        | 0.200    | 0.28          | 0.86      |                                |                   |      |                     |                            |              |                                |
| 64     | 2.16                        | 0.150    | 0.50          | 0.86      | 64                             | 825               | 29   | 6 370               | 766.0                      | 1970         | 83 12 - SUSP 84 12             |
| 128    | 9.98                        | 0.200    | 0.29          | 0.86      | 55                             | 825               | 27   | 5 800               | 757.2                      | 1972         | 85 12                          |
| 64     | 1.50                        | 0.220    | 0.45          | 0.81      | 64                             | 876               | 43   | 9 550               | 1 296.8                    | 1982         | 84 02                          |
| 64     | 9.50                        | 0.070    | 0.40          | 0.85      | 65                             | 869               | 43   | 9 487               | 1 251.8                    | 1984         | 84 10                          |
| 64     | 3.00                        | 0.110    | 0.35          | 0.70      | 68                             | 825               | 62   | 22 888              | 2 461.5                    | 1980         | 82 02                          |
| 12 910 |                             |          |               |           | 82                             | 834               | 66   | 25 300              | 2 033.9                    | 1956         | 81 12 - GPP                    |
| 259    | 4.30                        | 0.098    | 0.10          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 12 651 | 2.50                        | 0.108    | 0.10          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 192    | 2.71                        | 0.110    | 0.10          | 0.76      | 53                             | 834               | 54   | 8 270               | 1 719.4                    | 1961         | 84 12 - GPP                    |
| 64     | 1.30                        | 0.100    | 0.15          | 0.76      | 105                            | 851               | 54   | 8 230               | 1 634.7                    | 1982         | 84 03                          |
| 110    | 1.22                        | 0.160    | 0.30          | 0.79      | 82                             | 834               | 66   | 28 270              | 2 082.7                    | 1961         | 82 12 - GPP                    |
| 212    | 6.64                        | 0.030    | 0.30          | 0.70      | 89                             | 815               | 49   | 28 270              | 2 235.4                    | 1974         | 77 03 - GPP                    |



TABLE 2-4

| FIELD<br>POOL                              | 1                              | 2        | 3        | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>CROSSFIELD 026-01W5<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| SECOND WHITE<br>SPECKS B                   | 253.0                          | 0.10     |          | 25.3                           |                                | 25.3                           | 13.4                           | 11.9                                 |
| VIKING A                                   | 167.0                          | 0.15     |          | 25.0                           |                                | 25.0                           | 18.6                           | 6.4                                  |
| VIKING B                                   | 1 320.0                        | 0.10     |          | 132.0                          |                                | 132.0                          | 17.0                           | 115.0                                |
| VIKING C                                   | 38.8                           | 0.10     |          | 3.9                            |                                | 3.9                            | 2.0                            | 1.9                                  |
| VIKING D                                   | 133.0                          | 0.10     |          | 13.3                           |                                | 13.3                           | 0.6                            | 12.7                                 |
| VIKING E                                   | 140.0                          | 0.10     |          | 14.0                           |                                | 14.0                           | 0.5                            | 13.5                                 |
| RUNDLE C                                   | 600.0                          | 0.25     |          | 150.0                          |                                | 150.0                          | 69.5                           | 80.5                                 |
| RUNDLE E                                   | 2 260.0                        | 0.05     |          | 113.0                          |                                | 113.0                          | 75.8                           | 37.2                                 |
| RUNDLE G                                   | 1 230.0                        | 0.25     |          | 308.0                          |                                | 308.0                          | 145.8                          | 162.2                                |
| <b>CROSSFIELD EAST<br/>029-01W5</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM B                                  | 144.0                          | 0.07     |          | 10.1                           |                                | 10.1                           | 3.7                            | 6.4                                  |
| CARDIUM C                                  | 2 780.0                        | 0.10     |          | 278.0                          |                                | 278.0                          | 232.7                          | 45.3                                 |
| CARDIUM D                                  | 432.0                          | 0.06     |          | 25.9                           |                                | 25.9                           | 23.6                           | 2.3                                  |
| CARDIUM E                                  | 104.0                          | 0.10     |          | 10.4                           |                                | 10.4                           | 5.7                            | 4.7                                  |
| ELLERSLIE A                                | 212.0                          | 0.05     |          | 10.6                           |                                | 10.6                           | 4.6                            | 6.0                                  |
| ELKTON A                                   | 1 060.0                        | 0.17     |          | 180.0                          |                                | 180.0                          | 162.9                          | 17.1                                 |
| ELKTON B                                   | 188.0                          | <0.01    |          | 1.7                            |                                | 1.7                            |                                | 1.7                                  |
| ELKTON D                                   | 2 700.0                        | 0.13     |          | 351.0                          |                                | 351.0                          | 333.3                          | 17.7                                 |
| ELKTON F                                   | 634.0                          | 0.10     |          | 63.4                           |                                | 63.4                           | 31.9                           | 31.5                                 |
| <b>CRYSTAL 046-03W5</b>                    |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A TOTAL                             | 20 200.0                       |          |          | 2 970.0                        | 3 720.0                        | 6 690.0                        | 837.1                          | 5 852.9                              |
| PRIMARY AREA                               | 4 740.0                        | 0.15     |          | 711.0                          |                                | 711.0                          |                                |                                      |
| WATER FLOOD AREA                           | 15 500.0                       | 0.15     | 0.25     | 2 260.0                        | 3 720.0                        | 5 980.0                        |                                |                                      |
| VIKING H                                   | 1 640.0                        | 0.15     |          | 246.0                          |                                | 246.0                          | 63.5                           | 182.5                                |
| <b>CYGNET 038-01W5</b>                     |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                                   | 550.0                          | 0.15     |          | 82.5                           |                                | 82.5                           | 24.4                           | 58.1                                 |
| VIKING C                                   | 176.0                          | 0.15     |          | 26.4                           |                                | 26.4                           | 8.4                            | 18.0                                 |
| VIKING F                                   | 140.0                          | 0.10     |          | 14.0                           |                                | 14.0                           | 0.1                            | 13.9                                 |
| VIKING G                                   | 173.0                          | 0.15     |          | 26.0                           |                                | 26.0                           | 9.4                            | 16.6                                 |
| VIKING J                                   | 139.0                          | 0.10     |          | 13.9                           |                                | 13.9                           | 1.4                            | 12.5                                 |
| VIKING K                                   | 51.7                           | 0.20     |          | 10.3                           |                                | 10.3                           | 3.7                            | 6.6                                  |
| GLAUCONITIC A                              | 36.3                           | 0.10     |          | 3.6                            |                                | 3.6                            | 0.3                            | 3.3                                  |
| <b>CYN-PEM 051-11W5</b>                    |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                              | 269.0                          | 0.10     |          | 26.9                           |                                | 26.9                           | 2.6                            | 24.3                                 |
| BELLY RIVER B                              | 184.0                          | 0.10     |          | 18.4                           |                                | 18.4                           | 1.8                            | 16.6                                 |
| CARDIUM A TOTAL                            | 7 140.0                        |          |          | 857.0                          | 1 470.0                        | 2 330.0                        | 1 943.9                        | 386.1                                |
| PRIMARY AREA                               | 728.0                          | 0.12     |          | 87.4                           |                                | 87.4                           |                                |                                      |
| WATER FLOOD AREA                           | 6 410.0                        | <0.13    | 0.23     | 770.0                          | 1 470.0                        | 2 240.0                        |                                |                                      |
| CARDIUM B                                  | 736.0                          | 0.12     |          | 88.3                           |                                | 88.3                           | 36.8                           | 51.5                                 |
| CARDIUM C                                  | 1 180.0                        | 0.12     |          | 142.0                          |                                | 142.0                          | 100.9                          | 41.1                                 |
| CARDIUM D                                  | 3 270.0                        | 0.12     |          | 392.0                          |                                | 392.0                          | 152.1                          | 239.9                                |
| CARDIUM E                                  | 3 360.0                        | 0.12     |          | 403.0                          |                                | 403.0                          | 92.8                           | 310.2                                |
| CARDIUM F                                  | 54.1                           | 0.12     |          | 6.5                            |                                | 6.5                            | 0.2                            | 6.3                                  |
| CARDIUM J                                  | 239.0                          | 0.05     |          | 12.0                           |                                | 12.0                           | 2.0                            | 10.0                                 |
| CARDIUM L                                  | 1 000.0                        | 0.12     | 0.23     | 120.0                          | 230.0                          | 350.0                          | 41.3                           | 308.7                                |
| WATER FLOOD                                |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM M                                  | 397.0                          | 0.12     |          | 47.6                           |                                | 47.6                           | 8.8                            | 38.8                                 |
| CARDIUM N                                  | 185.0                          | 0.10     |          | 18.5                           |                                | 18.5                           | 1.4                            | 17.1                                 |
| CARDIUM O                                  | 1 520.0                        | 0.10     |          | 152.0                          |                                | 152.0                          | 37.4                           | 114.6                                |
| CARDIUM P                                  | 1 580.0                        | 0.12     |          | 190.0                          |                                | 190.0                          | 15.4                           | 174.6                                |
| ROCK CREEK I                               | 63.4                           | 0.10     |          | 6.3                            |                                | 6.3                            | 0.3                            | 6.0                                  |
| ROCK CREEK J                               | 21.1                           | 0.10     |          | 2.1                            |                                | 2.1                            |                                | 2.1                                  |
| ROCK CREEK C&G                             | 313.0                          | 0.03     |          | 9.4                            |                                | 9.4                            | 1.5                            | 7.9                                  |
| NISKU A WATER FLOOD                        | 475.0                          | 0.20     | 0.25     | 95.0                           | 119.0                          | 214.0                          | 78.4                           | 135.6                                |
| <b>DAVEY 034-27W4</b>                      |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER B                              | 2 500.0                        | 0.05     |          | 125.0                          |                                | 125.0                          | 47.1                           | 77.9                                 |
| BELLY RIVER F                              | 614.0                          | 0.05     |          | 30.7                           |                                | 30.7                           | 12.8                           | 17.9                                 |
| BELLY RIVER G                              | 316.0                          | 0.03     |          | 9.5                            |                                | 9.5                            | 2.7                            | 6.8                                  |
| PEKISKO A                                  | 3 110.0                        | 0.06     |          | 187.0                          |                                | 187.0                          | 119.7                          | 67.3                                 |
| PEKISKO C                                  | 183.0                          | 0.05     |          | 9.2                            |                                | 9.2                            | 2.3                            | 6.9                                  |
| D-2 A                                      | 112.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| D-2 B                                      | 278.0                          | <0.01    |          | 2.1                            |                                | 2.1                            | 2.1                            |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 3.00                        | 0.220    | 0.20          | 0.75      | 85                             | 827               | 70   | 27 598              | 2 171.5                    | 1980         | 80 09                          |
| 198   | 1.70                        | 0.100    | 0.29          | 0.70      | 44                             | 839               | 64   | 22 480              | 2 176.0                    | 1964         | 81 12 - GPP                    |
| 256   | 7.67                        | 0.120    | 0.30          | 0.80      | 161                            | 838               | 80   | 14 428              | 2 244.5                    | 1982         | 84 03                          |
| 64    | 1.60                        | 0.080    | 0.40          | 0.79      | 84                             | 838               | 80   | 16 046              | 2 290.2                    | 1982         | 83 07                          |
| 64    | 4.27                        | 0.103    | 0.40          | 0.79      | 84                             | 838               | 80   | 15 734              | 2 241.0                    | 1983         | 84 04                          |
| 64    | 5.97                        | 0.077    | 0.44          | 0.85      | 48                             | 811               | 72   | 15 905              | 2 270.0                    | 1983         | 85 03                          |
| 128   | 8.45                        | 0.100    | 0.27          | 0.76      | 133                            | 865               | 81   | 22 510              | 2 607.1                    | 1963         | 83 11                          |
| 669   | 4.63                        | 0.120    | 0.20          | 0.76      | 121                            | 860               | 71   | 19 510              | 2 114.1                    | 1967         | 71 02                          |
| 202   | 12.19                       | 0.102    | 0.30          | 0.70      | 131                            | 860               | 81   | 22 340              | 2 601.8                    | 1974         | 76 06                          |
| 128   | 1.68                        | 0.110    | 0.15          | 0.75      | 46                             | 815               | 60   | 6 410               | 1 720.6                    | 1966         | 83 10                          |
| 2 303 | 1.46                        | 0.120    | 0.14          | 0.80      | 69                             | 849               | 59   | 20 943              | 1 765.9                    | 1966         | 84 05                          |
| 740   | 0.88                        | 0.104    | 0.15          | 0.75      | 53                             | 815               | 63   | 20 620              | 1 676.7                    | 1968         | 78 12 - GPP                    |
| 64    | 1.50                        | 0.160    | 0.15          | 0.80      | 80                             | 844               | 52   | 14 260              | 1 650.7                    | 1978         | 83 12 - GPP                    |
| 64    | 5.30                        | 0.100    | 0.30          | 0.89      | 35                             | 874               | 66   | 15 250              | 2 103.8                    | 1977         | 79 01 - GPP                    |
| 486   | 6.74                        | 0.064    | 0.17          | 0.68      | 195                            | 855               | 70   | 20 890              | 2 291.5                    | 1968         | 81 12 - GPP                    |
| 65    | 11.86                       | 0.047    | 0.20          | 0.65      | 191                            | 855               | 71   | 20 690              | 2 241.2                    | 1965         | 68 05 - ABAND 67 09            |
| 462   | 11.00                       | 0.092    | 0.15          | 0.68      | 191                            | 855               | 79   | 21 100              | 2 325.1                    | 1965         | 85 12 - GPP                    |
| 128   | 11.40                       | 0.090    | 0.29          | 0.68      | 154                            | 853               | 79   | 20 813              | 2 328.8                    | 1976         | 83 05                          |
| 3 984 |                             |          |               |           | 82                             | 825               | 76   | 10 316              | 1 752.0                    | 1978         | 85 10                          |
| 1 601 | 5.61                        | 0.105    | 0.38          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 2 383 | 12.33                       | 0.105    | 0.38          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 804   | 3.33                        | 0.120    | 0.37          | 0.81      | 74                             | 807               | 60   | 10 725              | 1 737.4                    | 1983         | 84 12                          |
| 607   | 1.94                        | 0.090    | 0.35          | 0.80      | 130                            | 813               | 65   | 13 110              | 1 641.8                    | 1981         | 84 12                          |
| 259   | 1.89                        | 0.090    | 0.43          | 0.70      | 130                            | 820               | 57   | 13 210              | 1 715.1                    | 1980         | 85 04 - GPP                    |
| 64    | 3.50                        | 0.120    | 0.35          | 0.80      | 78                             | 821               | 50   | 12 929              | 1 688.3                    | 1983         | 83 12                          |
| 320   | 1.75                        | 0.079    | 0.51          | 0.80      | 70                             | 818               | 61   | 12 768              | 1 656.9                    | 1983         | 85 08                          |
| 64    | 4.40                        | 0.100    | 0.35          | 0.76      | 130                            | 798               | 44   | 7 753               | 1 723.0                    | 1983         | 84 04                          |
| 192   | 0.68                        | 0.070    | 0.31          | 0.80      | 83                             | 822               | 63   | 11 730              | 1 687.4                    | 1984         | 85 11                          |
| 32    | 1.50                        | 0.140    | 0.35          | 0.83      | 68                             | 923               | 62   | 13 600              | 1 832.0                    | 1980         | 80 11 - SUSP 81 03             |
| 64    | 5.30                        | 0.167    | 0.40          | 0.79      | 87                             | 810               | 48   | 8 191               | 1 206.0                    | 1982         | 83 03                          |
| 64    | 3.20                        | 0.180    | 0.44          | 0.89      | 66                             | 822               | 37   | 7 956               | 1 183.3                    | 1982         | 83 06 - SUSP 84 12             |
| 1 575 |                             |          |               |           | 52                             | 844               | 56   | 19 130              | 1 643.6                    | 1962         | 83 11                          |
| 256   | 3.79                        | 0.097    | 0.11          | 0.87      |                                |                   |      |                     |                            |              |                                |
| 1 319 | 6.47                        | 0.097    | 0.11          | 0.87      |                                |                   |      |                     |                            |              |                                |
| 192   | 4.66                        | 0.105    | 0.10          | 0.87      | 52                             | 844               | 57   | 19 200              | 1 672.5                    | 1963         | 85 08 - GPP                    |
| 339   | 4.11                        | 0.107    | 0.10          | 0.88      | 52                             | 844               | 57   | 19 170              | 1 652.8                    | 1963         | 78 11                          |
| 711   | 7.35                        | 0.090    | 0.22          | 0.89      | 41                             | 868               | 54   | 12 967              | 1 559.2                    | 1980         | 85 07                          |
| 704   | 6.62                        | 0.100    | 0.19          | 0.89      | 41                             | 869               | 54   | 9 618               | 1 552.6                    | 1982         | 85 09                          |
| 64    | 1.20                        | 0.100    | 0.20          | 0.88      | 52                             | 878               | 56   | 10 794              | 1 544.4                    | 1982         | 82 12                          |
| 64    | 7.00                        | 0.100    | 0.40          | 0.89      | 41                             | 871               | 54   | 7 528               | 1 512.8                    | 1982         | 85 12 - GPP                    |
| 171   | 6.51                        | 0.120    | 0.15          | 0.88      | 61                             | 856               | 56   | 19 037              | 1 642.7                    | 1983         | 85 07                          |
| 128   | 7.51                        | 0.060    | 0.20          | 0.86      | 53                             | 845               | 36   | 10 166              | 1 788.4                    | 1983         | 85 08                          |
| 64    | 2.88                        | 0.134    | 0.15          | 0.88      | 44                             | 844               | 58   | 9 791               | 1 750.7                    | 1984         | 85 03                          |
| 256   | 8.84                        | 0.100    | 0.21          | 0.85      | 45                             | 844               | 52   | 10 253              | 1 567.0                    | 1982         | 85 09                          |
| 320   | 7.36                        | 0.100    | 0.22          | 0.86      | 55                             | 825               | 58   | 8 500               | 1 814.6                    | 1982         | 85 12                          |
| 64    | 2.40                        | 0.082    | 0.32          | 0.74      | 120                            | 828               | 80   | 19 744              | 2 207.5                    | 1983         | 84 04                          |
| 64    | 0.80                        | 0.082    | 0.32          | 0.74      | 120                            | 828               | 80   | 19 662              | 2 197.9                    | 1983         | 84 04                          |
| 64    | 10.25                       | 0.104    | 0.38          | 0.74      | 120                            |                   | 78   | 15 899              | 2 177.4                    | 1981         | 85 12 - GPP                    |
| 64    | 13.90                       | 0.090    | 0.10          | 0.65      | 151                            | 806               | 90   | 26 600              | 2 658.7                    | 1978         | 80 12                          |
| 384   | 6.30                        | 0.185    | 0.40          | 0.93      | 17                             | 840               | 44   | 4 130               | 1 211.7                    | 1978         | 83 05                          |
| 128   | 5.62                        | 0.180    | 0.49          | 0.93      | 17                             | 841               | 44   | 4 316               | 1 191.9                    | 1978         | 85 12                          |
| 64    | 4.94                        | 0.185    | 0.40          | 0.90      | 26                             | 854               | 43   | 3 961               | 1 206.5                    | 1980         | 85 12                          |
| 768   | 11.20                       | 0.066    | 0.27          | 0.75      | 98                             | 855               | 66   | 12 580              | 1 988.4                    | 1958         | 81 12                          |
| 64    | 13.60                       | 0.040    | 0.30          | 0.75      | 85                             | 854               | 59   | 11 665              | 1 990.7                    | 1981         | 84 12 - GPP                    |
| 65    | 9.75                        | 0.034    | 0.20          | 0.65      | 177                            | 825               | 66   | 21 710              | 2 355.5                    | 1974         | 78 07 - ABAND 77 12            |
| 65    | 16.46                       | 0.049    | 0.18          | 0.65      | 220                            | 825               | 66   | 21 580              | 2 354.9                    | 1974         | 80 12 - ABAND 79 11            |



TABLE 2-4

| FIELD<br>POOL                      | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                    | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                    |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                    | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| DEL BONITA 001-21W4<br>RUNDLE      | 397.0                          | 0.27     |          | 107.0                          |                                | 107.0                          | 103.7                          | 3.3                                  |
| DELIA 032-18W4<br>ELLERSLIE A      | 73.4                           | 0.10     |          | 7.3                            |                                | 7.3                            | 1.6                            | 5.7                                  |
| DIMSDALE 071-07W6<br>HALFWAY A     | 183.0                          | 0.05     |          | 9.2                            |                                | 9.2                            | 2.8                            | 6.4                                  |
| HALFWAY B                          | 82.1                           | 0.10     |          | 8.2                            |                                | 8.2                            | 4.1                            | 4.1                                  |
| DRUMHELLER 029-19W4<br>MANNVILLE A | 291.0                          | 0.05     |          | 14.6                           |                                | 14.6                           | 9.7                            | 4.9                                  |
| MANNVILLE F                        | 450.0                          | <0.01    |          | 4.2                            |                                | 4.2                            | 4.2                            |                                      |
| MANNVILLE I                        | 1 330.0                        | 0.05     |          | 66.5                           |                                | 66.5                           | 9.6                            | 56.9                                 |
| MANNVILLE K                        | 228.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MANNVILLE L                        | 265.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| MANNVILLE T                        | 157.0                          | <0.06    |          | 7.8                            |                                | 7.8                            | 2.7                            | 5.1                                  |
| MANNVILLE Y                        | 265.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| MANNVILLE Z                        | 177.0                          | 0.10     |          | 17.7                           |                                | 17.7                           | 3.6                            | 14.1                                 |
| MANNVILLE AA                       | 571.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MANNVILLE BB                       | 267.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MANNVILLE DD                       | 1 250.0                        | 0.03     |          | 37.5                           |                                | 37.5                           | 9.3                            | 28.2                                 |
| MANNVILLE FF                       | 305.0                          | 0.02     |          | 6.1                            |                                | 6.1                            | 1.2                            | 4.9                                  |
| UPPER MANNVILLE A                  | 524.0                          | 0.15     |          | 78.6                           |                                | 78.6                           | 51.1                           | 27.5                                 |
| UPPER MANNVILLE C                  | 253.0                          | 0.10     |          | 25.3                           |                                | 25.3                           | 4.0                            | 21.3                                 |
| UPPER MANNVILLE D                  | 36.9                           | 0.10     |          | 3.7                            |                                | 3.7                            | 0.7                            | 3.0                                  |
| LOWER MANNVILLE A                  | 157.0                          | 0.05     |          | 7.9                            |                                | 7.9                            | 1.5                            | 6.4                                  |
| LOWER MANNVILLE C                  | 532.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BANFF B                            | 71.4                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| D-2 A                              | 2 510.0                        | 0.65     |          | 1 630.0                        |                                | 1 630.0                        | 1 354.5                        | 275.5                                |
| D-2 B                              | 5 750.0                        | 0.50     |          | 2 880.0                        |                                | 2 880.0                        | 1 601.6                        | 1 278.4                              |
| D-2 C                              | 172.0                          | 0.15     |          | 25.8                           |                                | 25.8                           | 6.8                            | 19.0                                 |
| DUHAMEL 045-21W4<br>WABAMUN A      | 48.0                           | <0.08    |          | 3.5                            |                                | 3.5                            | 3.5                            |                                      |
| D-2 A                              | 2 000.0                        | 0.51     |          | 1 020.0                        |                                | 1 020.0                        | 969.5                          | 50.5                                 |
| D-3 A                              | 191.0                          | <0.10    |          | 18.3                           |                                | 18.3                           | 18.3                           |                                      |
| D-3 B WATER FLOOD                  | 2 240.0                        | 0.50     | 0.15     | 1 120.0                        | 336.0                          | 1 460.0                        | 1 253.8                        | 206.2                                |
| EAGLESHAM 077-25W5<br>DEBOLT D     | 149.0                          | <0.08    |          | 11.3                           |                                | 11.3                           | 11.3                           |                                      |
| D-1 A                              | 217.0                          | 0.30     |          | 65.1                           |                                | 65.1                           | 24.7                           | 40.4                                 |
| D-1 B                              | 504.0                          | 0.10     |          | 50.4                           |                                | 50.4                           | 11.8                           | 38.6                                 |
| D-3 A                              | 734.0                          | 0.40     |          | 294.0                          |                                | 294.0                          | 261.2                          | 32.8                                 |
| EDGERTON 044-04W4<br>CAMROSE A     | 360.0                          | 0.10     |          | 36.0                           |                                | 36.0                           | 1.6                            | 34.4                                 |
| EDSON 052-17W5<br>CARDIUM A        | 84.7                           | <0.11    |          | 9.2                            |                                | 9.2                            | 9.2                            |                                      |
| CARDIUM B TOTAL                    | 3 530.0                        |          |          | 358.0                          | 166.0                          | 524.0                          | 412.7                          | 111.3                                |
| PRIMARY AREA                       | 221.0                          | 0.12     |          | 26.5                           |                                | 26.5                           |                                |                                      |
| WATER FLOOD AREA                   | 3 310.0                        | 0.10     | 0.05     | 331.0                          | 166.0                          | 497.0                          |                                |                                      |
| CARDIUM C                          | 2 640.0                        | 0.05     |          | 132.0                          |                                | 132.0                          | 85.1                           | 46.9                                 |
| CARDIUM E                          | 236.0                          | 0.08     |          | 18.9                           |                                | 18.9                           | 4.4                            | 14.5                                 |
| CARDIUM H                          | 264.0                          | 0.02     |          | 5.3                            |                                | 5.3                            | 3.7                            | 1.6                                  |
| CARDIUM I                          | 324.0                          | 0.05     |          | 16.2                           |                                | 16.2                           | 12.1                           | 4.1                                  |
| CARDIUM J                          | 500.0                          | 0.10     |          | 50.0                           |                                | 50.0                           | 26.9                           | 23.1                                 |
| CARDIUM K                          | 1 680.0                        | 0.10     |          | 168.0                          |                                | 168.0                          | 51.0                           | 117.0                                |
| CARDIUM P                          | 1 760.0                        | 0.12     |          | 211.0                          |                                | 211.0                          | 108.6                          | 102.4                                |
| CARDIUM T                          | 150.0                          | 0.10     |          | 15.0                           |                                | 15.0                           | 6.6                            | 8.4                                  |
| CARDIUM U                          | 80.9                           | 0.10     |          | 8.1                            |                                | 8.1                            | 5.8                            | 2.3                                  |
| CARDIUM W                          | 32.4                           | 0.10     |          | 3.2                            |                                | 3.2                            |                                | 3.2                                  |
| CARDIUM EE                         | 55.9                           | 0.10     |          | 5.6                            |                                | 5.6                            | 1.9                            | 3.7                                  |
| CARDIUM II                         | 99.1                           | 0.10     |          | 9.9                            |                                | 9.9                            | 3.5                            | 6.4                                  |
| CARDIUM JJ                         | 250.0                          | 0.10     |          | 25.0                           |                                | 25.0                           | 9.2                            | 15.8                                 |
| CARDIUM KK                         | 105.0                          | 0.12     |          | 12.6                           |                                | 12.6                           | 8.4                            | 4.2                                  |
| CARDIUM OO                         | 38.4                           | 0.15     |          | 5.8                            |                                | 5.8                            | 2.5                            | 3.3                                  |
| CARDIUM RR                         | 1 350.0                        | 0.12     |          | 162.0                          |                                | 162.0                          | 70.3                           | 91.7                                 |
| CARDIUM SS                         | 109.0                          | 0.10     |          | 10.9                           |                                | 10.9                           | 0.9                            | 10.0                                 |
| CARDIUM TT                         | 12.8                           | 0.20     |          | 2.6                            |                                | 2.6                            | 1.7                            | 0.9                                  |
| CARDIUM UU                         | 26.6                           | 0.10     |          | 2.7                            |                                | 2.7                            | 1.8                            | 0.9                                  |
| CARDIUM VV                         | 42.9                           | 0.10     |          | 4.3                            |                                | 4.3                            | 2.6                            | 1.7                                  |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
|       |                             |          |               | 0.85      | 62                             | 839               | 44   | 8 270               | 1 568.8                    | 1936         | 71 03 - GPP                    |
| 64    | 1.50                        | 0.180    | 0.50          | 0.85      | 25                             | 866               | 39   | 9 304               | 1 327.8                    | 1982         | 82 11 - GPP                    |
| 64    | 6.80                        | 0.084    | 0.35          | 0.77      | 108                            | 820               | 78   | 21 897              | 2 148.8                    | 1980         | 83 12                          |
| 64    | 4.50                        | 0.073    | 0.45          | 0.71      | 120                            | 821               | 65   | 21 470              | 2 180.6                    | 1980         | 82 05                          |
| 85    | 4.07                        | 0.150    | 0.30          | 0.80      | 59                             | 865               | 49   | 9 430               | 1 355.6                    | 1950         | 83 06 - GPP                    |
| 71    | 3.96                        | 0.252    | 0.28          | 0.88      | 44                             | 855               | 47   | 10 340              | 1 303.5                    | 1969         | 85 07 - SUSP 84 11             |
| 384   | 6.06                        | 0.140    | 0.49          | 0.80      | 44                             | 855               | 54   | 9 340               | 1 299.1                    | 1966         | 85 03 - GPP                    |
| 64    | 4.60                        | 0.140    | 0.35          | 0.85      | 62                             | 849               | 54   | 10 080              | 1 305.2                    | 1968         | 79 11 - ABAND 82 05            |
| 65    | 4.27                        | 0.200    | 0.40          | 0.80      | 71                             | 855               | 56   | 9 430               | 1 310.9                    | 1969         | 70 08 - SUSP 70 02             |
| 55    | 1.83                        | 0.200    | 0.23          | 0.86      |                                |                   |      | 10 260              | 1 364.6                    | 1975         | 77 04                          |
| 64    | 7.00                        | 0.100    | 0.35          | 0.91      | 28                             | 887               | 54   | 6 300               | 1 250.3                    | 1978         | 79 02 - ABAND 79 01            |
| 128   | 1.30                        | 0.220    | 0.43          | 0.85      | 60                             | 858               | 46   | 10 282              | 1 272.1                    | 1978         | 84 06                          |
| 64    | 15.90                       | 0.120    | 0.45          | 0.85      | 54                             | 885               | 46   | 7 120               | 1 321.4                    | 1979         | 83 12 - SUSP 83 01             |
| 64    | 6.30                        | 0.130    | 0.40          | 0.85      | 62                             | 871               | 47   | 9 804               | 1 324.3                    | 1980         | 83 12 - SUSP 81 06             |
| 128   | 15.90                       | 0.140    | 0.46          | 0.81      | 78                             | 825               | 47   | 9 468               | 1 162.9                    | 1980         | 84 04 - GPP                    |
| 64    | 4.50                        | 0.210    | 0.37          | 0.80      | 78                             | 877               | 41   | 9 262               | 1 324.3                    | 1980         | 82 07 - SUSP 83 09             |
| 128   | 3.71                        | 0.206    | 0.33          | 0.80      | 62                             | 855               | 46   | 9 358               | 1 269.7                    | 1969         | 83 06                          |
| 64    | 4.70                        | 0.210    | 0.50          | 0.80      | 79                             | 869               | 50   | 10 500              | 1 318.2                    | 1982         | 82 09                          |
| 64    | 1.00                        | 0.160    | 0.55          | 0.80      | 87                             | 869               | 33   | 9 900               | 1 288.2                    | 1979         | 83 05                          |
| 64    | 3.56                        | 0.140    | 0.44          | 0.88      | 51                             | 850               | 40   | 7 000               | 1 270.5                    | 1981         | 83 12 - GPP                    |
| 64    | 11.80                       | 0.160    | 0.50          | 0.88      | 43                             | 844               | 40   | 9 180               | 1 139.9                    | 1982         | 83 03 - SUSP 83 03             |
| 64    | 2.80                        | 0.070    | 0.33          | 0.85      | 50                             | 876               | 50   | 8 903               | 1 321.4                    | 1979         | 83 12 - ABAND 80 08            |
| 605   | 7.63                        | 0.078    | 0.17          | 0.84      | 66                             | 860               | 55   | 13 170              | 1 655.1                    | 1951         | 75 04                          |
| 1 226 | 9.29                        | 0.076    | 0.18          | 0.81      | 70                             | 855               | 54   | 13 200              | 1 613.7                    | 1962         | 84 12                          |
| 64    | 5.00                        | 0.080    | 0.20          | 0.84      | 66                             | 858               | 55   | 12 934              | 1 625.5                    | 1981         | 83 12 - GPP                    |
| 65    | 1.22                        | 0.100    | 0.30          | 0.87      | 44                             | 844               | 71   | 8 960               | 1 374.6                    | 1956         | 67 02 - SUSP 69 02             |
| 507   | 10.36                       | 0.058    | 0.20          | 0.82      | 68                             | 844               | 54   | 10 340              | 1 375.3                    | 1951         | 81 12 - GPP                    |
| 272   | 4.48                        | 0.028    | 0.30          | 0.80      | 79                             | 844               | 57   | 12 890              | 1 472.2                    | 1956         | 64 04 - ABAND 69 12            |
| 212   | 20.52                       | 0.073    | 0.14          | 0.82      | 79                             | 844               | 56   | 12 930              | 1 461.2                    | 1950         | 85 07                          |
| 64    | 8.31                        | 0.050    | 0.20          | 0.70      | 149                            | 829               | 51   | 10 450              | 1 497.8                    | 1968         | 83 12 - SUSP 81 02             |
| 64    | 23.00                       | 0.040    | 0.45          | 0.67      | 167                            | 826               | 64   | 21 977              | 2 047.3                    | 1980         | 85 05                          |
| 64    | 19.60                       | 0.080    | 0.25          | 0.67      | 163                            | 835               | 64   | 20 939              | 2 053.1                    | 1981         | 83 10                          |
| 191   | 10.33                       | 0.062    | 0.13          | 0.69      | 154                            | 820               | 74   | 25 060              | 2 307.0                    | 1959         | 78 12 - GPP                    |
| 48    | 6.58                        | 0.180    | 0.34          | 0.96      | 17                             | 855               | 25   | 4 500               | 659.6                      | 1984         | 85 12                          |
| 65    | 1.52                        | 0.130    | 0.13          | 0.76      | 104                            | 825               | 61   | 21 720              | 1 785.8                    | 1963         | 71 12 - ABAND 71 09            |
| 2 522 |                             |          |               |           | 104                            | 825               | 61   | 22 410              | 1 843.7                    | 1963         | 78 12 - GPP                    |
| 253   | 1.37                        | 0.101    | 0.17          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 2 269 | 2.29                        | 0.101    | 0.17          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 2 495 | 2.40                        | 0.090    | 0.21          | 0.62      | 230                            | 815               | 64   | 23 250              | 1 984.1                    | 1972         | 83 07 - GPP                    |
| 192   | 1.79                        | 0.110    | 0.18          | 0.76      | 103                            | 825               | 60   | 19 974              | 1 922.0                    | 1974         | 84 09                          |
| 128   | 2.90                        | 0.120    | 0.22          | 0.76      | 104                            | 788               | 77   | 23 020              | 1 974.3                    | 1972         | 83 12 - GPP                    |
| 608   | 1.27                        | 0.090    | 0.25          | 0.62      | 208                            | 815               | 60   | 23 180              | 1 947.4                    | 1974         | 84 05                          |
| 516   | 1.50                        | 0.100    | 0.15          | 0.76      | 180                            | 802               | 55   | 20 800              | 1 895.6                    | 1978         | 81 12                          |
| 2 591 | 1.31                        | 0.110    | 0.30          | 0.62      | 220                            | 813               | 83   | 21 816              | 1 957.2                    | 1973         | 84 05                          |
| 2 348 | 1.84                        | 0.094    | 0.30          | 0.62      | 220                            | 805               | 83   | 23 316              | 1 984.3                    | 1981         | 84 05                          |
| 97    | 2.00                        | 0.150    | 0.15          | 0.61      | 200                            | 800               | 53   | 18 500              | 1 909.7                    | 1981         | 82 12                          |
| 64    | 2.00                        | 0.120    | 0.15          | 0.62      | 185                            | 800               | 63   | 19 361              | 1 899.5                    | 1981         | 82 12                          |
| 64    | 0.98                        | 0.080    | 0.15          | 0.76      | 105                            | 802               | 62   | 12 100              | 1 896.3                    | 1981         | 82 07                          |
| 64    | 2.40                        | 0.069    | 0.15          | 0.62      | 190                            | 813               | 69   | 18 500              | 2 002.1                    | 1982         | 82 11                          |
| 64    | 2.70                        | 0.090    | 0.15          | 0.75      | 104                            | 825               | 63   | 19 382              | 1 905.9                    | 1981         | 83 12                          |
| 221   | 2.00                        | 0.095    | 0.15          | 0.70      | 104                            | 800               | 64   | 22 739              | 1 940.2                    | 1980         | 83 12                          |
| 64    | 1.90                        | 0.150    | 0.07          | 0.62      | 195                            | 800               | 55   | 16 297              | 1 900.2                    | 1982         | 85 12                          |
| 64    | 1.40                        | 0.080    | 0.15          | 0.63      | 189                            | 819               | 64   | 19 229              | 1 868.0                    | 1982         | 84 12                          |
| 1 955 | 1.01                        | 0.120    | 0.15          | 0.67      | 170                            | 824               | 65   | 24 129              | 1 901.7                    | 1983         | 85 02                          |
| 64    | 3.00                        | 0.110    | 0.18          | 0.63      | 189                            | 819               | 64   | 19 900              | 1 918.3                    | 1983         | 83 10                          |
| 64    | 0.33                        | 0.110    | 0.15          | 0.65      | 186                            | 824               | 65   | 21 374              | 1 917.3                    | 1983         | 85 12                          |
| 64    | 0.79                        | 0.100    | 0.15          | 0.62      | 186                            | 824               | 65   | 21 374              | 1 969.5                    | 1981         | 84 01                          |
| 64    | 1.20                        | 0.120    | 0.25          | 0.62      | 189                            | 815               | 64   | 17 670              | 1 916.4                    | 1963         | 84 02                          |

TABLE 2-4

| FIELD<br>POOL                         | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                       | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                       |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                       | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>EDSON 052-17W5<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM XX                            | 62.1                           | 0.10     |          | 6.2                            |                                | 6.2                            | 1.0                            | 5.2                                  |
| CARDIUM CC & WW                       | 237.0                          | 0.10     |          | 23.7                           |                                | 23.7                           | 10.1                           | 13.6                                 |
| CARDIUM YY & ZZ                       | 157.0                          | 0.10     |          | 15.7                           |                                | 15.7                           | 0.8                            | 14.9                                 |
| CARDIUM AAA                           | 50.6                           | 0.12     |          | 6.1                            |                                | 6.1                            |                                | 6.1                                  |
| SECOND WHITE                          | 349.0                          | 0.10     |          | 34.9                           |                                | 34.9                           | 8.2                            | 26.7                                 |
| SPECKS A                              |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING C                              | 224.0                          | <0.02    |          | 2.9                            |                                | 2.9                            | 2.9                            |                                      |
| BLUESKY A                             | 3 800.0                        | 0.10     |          | 380.0                          |                                | 380.0                          | 65.7                           | 314.3                                |
| GETHING C                             | 130.0                          | 0.10     |          | 13.0                           |                                | 13.0                           | 5.1                            | 7.9                                  |
| CADOMIN A                             | 108.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| <b>ELLERSLIE 051-24W4</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE A                           | 79.6                           | <0.11    |          | 8.1                            |                                | 8.1                            | 8.1                            |                                      |
| BLAIRMORE B                           | 186.0                          | <0.32    |          | 59.2                           |                                | 59.2                           | 59.2                           |                                      |
| <b>ELMWORTH 070-11W6</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| DDE CREEK A                           | 160.0                          | 0.10     |          | 16.0                           |                                | 16.0                           | 0.2                            | 15.8                                 |
| CHARLIE LAKE A                        | 2 780.0                        | 0.15     |          | 417.0                          |                                | 417.0                          | 97.2                           | 319.8                                |
| CHARLIE LAKE B                        | 114.0                          | <0.02    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| <b>ENCHANT 012-16W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE K                     | 856.0                          | 0.10     |          | 85.6                           |                                | 85.6                           | 2.5                            | 83.1                                 |
| LOWER MANNVILLE G                     | 1 000.0                        | 0.25     |          | 250.0                          |                                | 250.0                          | 92.2                           | 157.8                                |
| <b>ENTICE 027-24W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                     | 331.0                          | 0.02     |          | 6.6                            |                                | 6.6                            | 3.7                            | 2.9                                  |
| PEKISKO A                             | 260.0                          | 0.03     |          | 7.8                            |                                | 7.8                            | 2.9                            | 4.9                                  |
| <b>ERSKINE 039-20W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE F                           | 192.0                          | <0.01    |          | 1.7                            |                                | 1.7                            | 1.7                            |                                      |
| BLAIRMORE G                           | 193.0                          | 0.10     |          | 19.3                           |                                | 19.3                           | 0.5                            | 18.8                                 |
| BLAIRMORE J                           | 465.0                          | 0.10     |          | 46.5                           |                                | 46.5                           | 9.7                            | 36.8                                 |
| BLAIRMORE P                           | 150.0                          | 0.10     |          | 15.0                           |                                | 15.0                           | 0.4                            | 14.6                                 |
| GLAUCONITIC E                         | 178.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| GLAUCONITIC F                         | 201.0                          | 0.10     |          | 20.1                           |                                | 20.1                           | 2.5                            | 17.6                                 |
| GLAUCONITIC I                         | 149.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| D-2                                   | 456.0                          | 0.10     |          | 45.6                           |                                | 45.6                           | 38.9                           | 6.7                                  |
| D-2 B                                 | 59.3                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| D-2 C                                 | 41.6                           | 0.10     |          | 4.2                            |                                | 4.2                            | 0.7                            | 3.5                                  |
| D-2 D                                 | 80.2                           | 0.10     |          | 8.0                            |                                | 8.0                            | 4.4                            | 3.6                                  |
| D-2 E                                 | 116.0                          | 0.10     |          | 11.6                           |                                | 11.6                           |                                | 11.6                                 |
| D-3                                   | 6 390.0                        | 0.60     |          | 3 830.0                        |                                | 3 830.0                        | 3 479.9                        | 350.1                                |
| D-3 C                                 | 20.8                           | 0.60     |          | 12.5                           |                                | 12.5                           | 4.1                            | 8.4                                  |
| <b>ESTHER 032-02W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                              | 200.0                          | 0.10     |          | 20.0                           |                                | 20.0                           | 0.7                            | 19.3                                 |
| VIKING B&C                            | 522.0                          | 0.10     |          | 52.2                           |                                | 52.2                           | 9.9                            | 42.3                                 |
| <b>ESTUARY 023-22W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ A                        | 200.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| <b>ETHEL 067-08W5</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| BEAVERHILL LAKE A                     | 1 290.0                        | 0.01     |          | 12.9                           |                                | 12.9                           | 8.4                            | 4.5                                  |
| <b>EVI 087-13W5</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A                         | 880.0                          | 0.30     |          | 264.0                          |                                | 264.0                          | 73.6                           | 190.4                                |
| SLAVE POINT B                         | 1 210.0                        | 0.35     |          | 424.0                          |                                | 424.0                          | 78.7                           | 345.3                                |
| SLAVE POINT C                         | 280.0                          | 0.15     |          | 42.0                           |                                | 42.0                           | 10.4                           | 31.6                                 |
| SLAVE POINT D                         | 216.0                          | 0.30     |          | 64.8                           |                                | 64.8                           | 10.9                           | 53.9                                 |
| SLAVE POINT E                         | 66.4                           | 0.10     |          | 6.6                            |                                | 6.6                            | 1.3                            | 5.3                                  |
| SLAVE POINT F                         | 118.0                          | 0.30     |          | 35.4                           |                                | 35.4                           | 2.5                            | 32.9                                 |
| SLAVE POINT H                         | 1 050.0                        | 0.30     |          | 315.0                          |                                | 315.0                          | 31.4                           | 283.6                                |
| SLAVE POINT I                         | 153.0                          | 0.20     |          | 30.6                           |                                | 30.6                           | 6.9                            | 23.7                                 |
| SLAVE POINT K                         | 1 230.0                        | 0.20     |          | 246.0                          |                                | 246.0                          | 13.4                           | 232.6                                |
| SLAVE POINT L                         | 185.0                          | 0.30     |          | 55.5                           |                                | 55.5                           | 9.6                            | 45.9                                 |
| SLAVE POINT M                         | 62.9                           | 0.30     |          | 18.9                           |                                | 18.9                           | 2.2                            | 16.7                                 |
| GILWOOD A                             | 952.0                          | 0.20     |          | 190.0                          |                                | 190.0                          | 87.1                           | 102.9                                |
| GILWOOD B                             | 234.0                          | 0.20     |          | 46.8                           |                                | 46.8                           | 16.1                           | 30.7                                 |
| GILWOOD D                             | 327.0                          | 0.20     |          | 65.4                           |                                | 65.4                           | 24.3                           | 41.1                                 |
| GILWOOD G                             | 53.2                           | 0.20     |          | 10.6                           |                                | 10.6                           | 7.2                            | 3.4                                  |
| GILWOOD H                             | 214.0                          | 0.20     |          | 42.8                           |                                | 42.8                           | 5.0                            | 37.8                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 1.30                        | 0.130    | 0.18          | 0.70      | 153                            | 821               | 64   | 18 370              | 1 865.2                    | 1984         | 85 01                          |
| 512   | 0.88                        | 0.100    | 0.26          | 0.71      | 122                            | 809               | 63   | 21 587              | 1 965.6                    | 1974         | 84 10                          |
| 128   | 2.10                        | 0.110    | 0.24          | 0.70      | 189                            | 819               | 64   | 17 626              | 1 856.6                    | 1983         | 85 09                          |
| 64    | 1.70                        | 0.112    | 0.33          | 0.62      | 220                            | 813               | 83   | 21 816              | 1 955.0                    | 1985         | 85 09                          |
| 64    | 4.60                        | 0.220    | 0.24          | 0.71      | 120                            | 800               | 65   | 25 286              | 2 101.3                    | 1981         | 83 02                          |
| 64    | 4.00                        | 0.160    | 0.30          | 0.78      | 80                             | 820               | 88   | 29 610              | 2 690.9                    | 1976         | 81 12 - SUSP 81 01             |
| 448   | 13.94                       | 0.100    | 0.24          | 0.80      | 120                            | 802               | 76   | 22 130              | 2 567.0                    | 1979         | 82 08                          |
| 64    | 5.30                        | 0.100    | 0.25          | 0.51      | 308                            | 804               | 82   | 22 870              | 2 539.3                    | 1978         | 79 03                          |
| 64    | 2.00                        | 0.150    | 0.20          | 0.70      | 140                            | 800               | 97   | 16 500              | 1 995.6                    | 1981         | 82 04 - SUSP 84 02             |
| 83    | 0.91                        | 0.200    | 0.30          | 0.75      | 46                             | 876               | 47   | 8 820               | 1 188.4                    | 1950         | 71 05 - ABAND 70 07            |
| 135   | 1.43                        | 0.173    | 0.36          | 0.87      | 46                             | 876               | 47   | 8 860               | 1 184.8                    | 1951         | 74 04 - ABAND 74 03            |
| 64    | 2.30                        | 0.190    | 0.35          | 0.88      | 50                             | 840               | 39   | 7 200               | 1 167.7                    | 1982         | 85 12                          |
| 768   | 5.90                        | 0.100    | 0.16          | 0.73      | 114                            | 820               | 85   | 3 100               | 2 396.7                    | 1979         | 84 11                          |
| 64    | 3.40                        | 0.110    | 0.32          | 0.70      | 83                             | 803               | 18   | 19 833              | 2 255.8                    | 1979         | 83 12 - SUSP 81 03             |
| 64    | 11.30                       | 0.190    | 0.30          | 0.89      | 44                             | 891               | 33   | 11 800              | 1 044.7                    | 1982         | 82 11                          |
| 322   | 2.44                        | 0.220    | 0.32          | 0.85      | 67                             | 875               | 32   | 11 135              | 990.1                      | 1981         | 85 12                          |
| 64    | 3.00                        | 0.260    | 0.21          | 0.84      | 67                             | 884               | 44   | 10 850              | 1 575.8                    | 1976         | 82 12 - GPP                    |
| 64    | 10.00                       | 0.090    | 0.45          | 0.82      | 52                             | 887               | 53   | 9 500               | 1 689.2                    | 1980         | 83 12 - GPP                    |
| 64    | 3.10                        | 0.190    | 0.42          | 0.88      | 48                             | 899               | 50   | 9 900               | 1 385.1                    | 1978         | 79 05 - ABAND 83 09            |
| 64    | 2.20                        | 0.200    | 0.22          | 0.88      | 121                            | 875               | 52   | 18 270              | 1 334.1                    | 1980         | 85 05                          |
| 192   | 2.29                        | 0.190    | 0.36          | 0.87      | 47                             | 880               | 46   | 9 991               | 1 340.2                    | 1982         | 84 06                          |
| 64    | 2.80                        | 0.190    | 0.50          | 0.88      | 48                             | 875               | 37   | 9 900               | 1 379.8                    | 1984         | 85 02                          |
| 64    | 2.40                        | 0.200    | 0.30          | 0.83      | 68                             | 877               | 44   | 9 797               | 1 329.9                    | 1973         | 83 04 - ABAND 85 04            |
| 64    | 2.70                        | 0.200    | 0.30          | 0.83      | 75                             | 870               | 50   | 9 475               | 1 318.0                    | 1981         | 81 07 - SUSP 85 07             |
| 64    | 2.40                        | 0.180    | 0.35          | 0.83      | 68                             | 877               | 44   | 9 360               | 1 334.7                    | 1973         | 84 05 - SUSP 84 05             |
| 58    | 17.37                       | 0.067    | 0.15          | 0.80      | 76                             | 887               | 60   | 11 960              | 1 577.6                    | 1959         | 73 12 - GPP                    |
| 16    | 9.50                        | 0.065    | 0.25          | 0.80      | 77                             |                   | 61   | 10 418              | 1 573.3                    | 1980         | 84 12 - SUSP 84 03             |
| 32    | 3.19                        | 0.060    | 0.15          | 0.80      | 54                             | 887               | 60   | 11 304              | 1 576.2                    | 1955         | 84 01 - GPP                    |
| 64    | 2.00                        | 0.090    | 0.14          | 0.81      | 76                             | 871               | 61   | 11 115              | 1 576.5                    | 1984         | 84 11                          |
| 64    | 2.99                        | 0.100    | 0.24          | 0.80      | 84                             | 887               | 48   | 12 070              | 1 582.8                    | 1984         | 85 02                          |
| 1 720 | 8.60                        | 0.062    | 0.15          | 0.82      | 84                             | 887               | 61   | 15 270              | 1 642.0                    | 1953         | 82 12 - GPP                    |
| 11    | 39.00                       | 0.075    | 0.21          | 0.82      | 68                             | 887               | 66   | 12 100              | 1 629.0                    | 1983         | 85 09                          |
| 192   | 0.93                        | 0.240    | 0.48          | 0.90      | 38                             | 871               | 29   | 6 809               | 718.9                      | 1969         | 83 03 - SUSP 84 03             |
| 192   | 2.52                        | 0.210    | 0.43          | 0.90      | 44                             | 849               | 27   | 6 574               | 713.3                      | 1974         | 85 04                          |
| 64    | 4.50                        | 0.150    | 0.45          | 0.84      | 68                             | 877               | 46   | 10 689              | 1 517.3                    | 1980         | 83 12 - SUSP 81 11             |
| 519   | 7.19                        | 0.057    | 0.17          | 0.73      | 99                             | 815               | 67   | 21 550              | 2 292.7                    | 1964         | 76 04 - GPP                    |
| 384   | 5.64                        | 0.062    | 0.28          | 0.91      | 171                            | 833               | 38   | 16 364              | 1 573.8                    | 1979         | 83 10                          |
| 705   | 3.86                        | 0.065    | 0.25          | 0.91      | 30                             | 833               | 38   | 16 257              | 1 555.3                    | 1979         | 82 10                          |
| 64    | 5.00                        | 0.120    | 0.20          | 0.91      | 33                             | 833               | 38   | 15 810              | 1 576.5                    | 1981         | 85 12                          |
| 64    | 6.50                        | 0.090    | 0.27          | 0.79      | 94                             | 861               | 49   | 15 650              | 1 584.3                    | 1982         | 83 02                          |
| 64    | 3.00                        | 0.060    | 0.27          | 0.79      | 94                             | 833               | 49   | 15 649              | 1 528.3                    | 1982         | 85 12 - GPP                    |
| 64    | 4.00                        | 0.080    | 0.27          | 0.79      | 94                             | 833               | 49   | 15 926              | 1 543.0                    | 1982         | 83 02 - SUSP 84 06             |
| 192   | 9.70                        | 0.080    | 0.19          | 0.87      | 40                             | 842               | 36   | 16 422              | 1 553.3                    | 1983         | 85 05                          |
| 64    | 6.00                        | 0.060    | 0.27          | 0.91      | 32                             | 833               | 38   | 3 800               | 1 545.0                    | 1982         | 82 10                          |
| 320   | 11.00                       | 0.060    | 0.36          | 0.91      | 34                             | 828               | 54   | 15 571              | 1 506.2                    | 1980         | 84 01                          |
| 64    | 13.60                       | 0.039    | 0.40          | 0.91      | 42                             | 827               | 66   | 6 850               | 1 507.3                    | 1981         | 81 08                          |
| 64    | 5.40                        | 0.040    | 0.50          | 0.91      | 33                             | 835               | 38   | 15 404              | 1 508.0                    | 1983         | 84 01                          |
| 377   | 2.32                        | 0.200    | 0.31          | 0.79      | 57                             | 820               | 41   | 16 745              | 1 587.0                    | 1982         | 82 10                          |
| 64    | 4.20                        | 0.150    | 0.30          | 0.83      | 57                             | 820               | 41   | 16 291              | 1 601.0                    | 1982         | 82 06                          |
| 192   | 2.25                        | 0.140    | 0.35          | 0.83      | 66                             | 833               | 41   | 16 333              | 1 645.6                    | 1981         | 82 10                          |
| 64    | 2.17                        | 0.087    | 0.50          | 0.88      | 44                             | 835               | 44   | 16 388              | 1 584.6                    | 1982         | 84 05                          |
| 64    | 2.10                        | 0.240    | 0.20          | 0.83      | 66                             | 833               | 36   | 16 754              | 1 593.8                    | 1981         | 82 08                          |

TABLE 2-4

| FIELD<br>POOL                    | 1                              | 3        |          | 5                              |                                |                                | 6                              | 7                                    | 8 |
|----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|---|
|                                  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |   |
|                                  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |   |
|                                  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |   |
| EVI 087-13W5<br>(CONTINUED)      |                                |          |          |                                |                                |                                |                                |                                      |   |
| GILWOOD I                        | 669.0                          | 0.25     |          | 167.0                          |                                | 167.0                          | 60.7                           | 106.3                                |   |
| GILWOOD J                        | 237.0                          | <0.01    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |   |
| GILWOOD K                        | 292.0                          | 0.10     |          | 29.2                           |                                | 29.2                           | 6.9                            | 22.3                                 |   |
| GILWOOD L                        | 127.0                          | 0.20     |          | 25.4                           |                                | 25.4                           | 8.9                            | 16.5                                 |   |
| GILWOOD M                        | 309.0                          | 0.20     |          | 61.8                           |                                | 61.8                           | 14.3                           | 47.5                                 |   |
| GILWOOD D                        | 258.0                          | 0.20     |          | 51.6                           |                                | 51.6                           | 34.3                           | 17.3                                 |   |
| GILWOOD P                        | 210.0                          | 0.20     |          | 42.0                           |                                | 42.0                           | 6.9                            | 35.1                                 |   |
| GILWOOD Q                        | 86.7                           | 0.20     |          | 17.3                           |                                | 17.3                           | 5.6                            | 11.7                                 |   |
| GILWOOD R                        | 45.4                           | 0.20     |          | 9.1                            |                                | 9.1                            | 1.6                            | 7.5                                  |   |
| GILWOOD S                        | 13.0                           | 0.20     |          | 2.6                            |                                | 2.6                            | 1.5                            | 1.1                                  |   |
| GILWOOD T                        | 60.3                           | 0.20     |          | 12.1                           |                                | 12.1                           |                                | 12.1                                 |   |
| GILWOOD U                        | 238.0                          | 0.20     |          | 47.6                           |                                | 47.6                           | 5.7                            | 41.9                                 |   |
| GRANITE WASH G                   | 50.0                           | 0.20     |          | 10.0                           |                                | 10.0                           | 5.7                            | 4.3                                  |   |
| GRANITE WASH H                   | 180.0                          | 0.20     |          | 36.0                           |                                | 36.0                           | 12.3                           | 23.7                                 |   |
| GRANITE WASH I                   | 50.0                           | 0.20     |          | 10.0                           |                                | 10.0                           | 8.4                            | 1.6                                  |   |
| GRANITE WASH K                   | 50.0                           | 0.20     |          | 10.0                           |                                | 10.0                           | 5.4                            | 4.6                                  |   |
| GRANITE WASH L                   | 329.0                          | 0.20     |          | 65.8                           |                                | 65.8                           | 9.3                            | 56.5                                 |   |
| GRANITE WASH M                   | 35.0                           | 0.20     |          | 7.0                            |                                | 7.0                            | 3.5                            | 3.5                                  |   |
| EWING LAKE 037-21W4              |                                |          |          |                                |                                |                                |                                |                                      |   |
| D-2 C                            | 448.0                          | 0.35     |          | 157.0                          |                                | 157.0                          | 141.4                          | 15.6                                 |   |
| D-2 D                            | 1 500.0                        | 0.30     |          | 450.0                          |                                | 450.0                          | 317.9                          | 132.1                                |   |
| D-2 E                            | 11.3                           | 0.30     |          | 3.4                            |                                | 3.4                            | 1.2                            | 2.2                                  |   |
| D-3 A                            | 516.0                          | 0.55     |          | 284.0                          |                                | 284.0                          | 268.9                          | 15.1                                 |   |
| D-3 B                            | 252.0                          | 0.20     |          | 50.4                           |                                | 50.4                           | 17.9                           | 32.5                                 |   |
| EXCELSIOR 056-24W4               |                                |          |          |                                |                                |                                |                                |                                      |   |
| MANNVILLE A                      | 1 800.0                        | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |   |
| D-2                              | 6 200.0                        | 0.68     |          | 4 210.0                        |                                | 4 210.0                        | 4 152.0                        | 58.0                                 |   |
| FAIRYDELL-BON ACCORD<br>057-24W4 |                                |          |          |                                |                                |                                |                                |                                      |   |
| UPPER VIKING B                   | 234.0                          | 0.10     |          | 23.4                           |                                | 23.4                           | 20.0                           | 3.4                                  |   |
| MIDDLE VIKING C                  | 36.9                           | <0.10    |          | 3.4                            |                                | 3.4                            |                                | 3.4                                  |   |
| BASAL MANNVILLE A                | 287.0                          | 0.05     |          | 14.4                           |                                | 14.4                           | 0.8                            | 13.6                                 |   |
| BASAL MANNVILLE C                | 1 340.0                        | 0.08     |          | 107.0                          |                                | 107.0                          | 72.7                           | 34.3                                 |   |
| BASAL MANNVILLE H                | 350.0                          | 0.10     |          | 35.0                           |                                | 35.0                           | 0.5                            | 34.5                                 |   |
| D-2 A                            | 1 030.0                        | <0.13    |          | 124.3                          |                                | 124.3                          | 124.3                          |                                      |   |
| D-2 B                            | 671.0                          | 0.45     |          | 302.0                          |                                | 302.0                          | 289.7                          | 12.3                                 |   |
| D-3 A                            | 2 770.0                        | 0.72     |          | 2 000.0                        |                                | 2 000.0                        | 1 764.3                        | 235.7                                |   |
| FARRELL 034-16W4                 |                                |          |          |                                |                                |                                |                                |                                      |   |
| LOWER MANNVILLE A                | 104.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |   |
| FENN WEST 036-20W4               |                                |          |          |                                |                                |                                |                                |                                      |   |
| BANFF A                          | 11.8                           | <0.17    |          | 1.9                            |                                | 1.9                            | 1.9                            |                                      |   |
| D-2 A                            | 2 600.0                        | 0.60     |          | 1 560.0                        |                                | 1 560.0                        | 1 199.7                        | 360.3                                |   |
| D-2 B                            | 154.0                          | <0.03    |          | 3.1                            |                                | 3.1                            | 3.1                            |                                      |   |
| D-2 C                            | 690.0                          | 0.25     |          | 173.0                          |                                | 173.0                          | 30.5                           | 142.5                                |   |
| D-2 D                            | 397.0                          | 0.30     |          | 119.0                          |                                | 119.0                          | 25.6                           | 93.4                                 |   |
| D-2 E                            | 400.0                          | 0.40     |          | 160.0                          |                                | 160.0                          | 25.6                           | 134.4                                |   |
| D-3 A                            | 559.0                          | 0.25     |          | 140.0                          |                                | 140.0                          | 35.8                           | 104.2                                |   |
| D-3 B                            | 154.0                          | 0.25     |          | 38.5                           |                                | 38.5                           | 4.0                            | 34.5                                 |   |
| D-3 C                            | 375.0                          | 0.40     |          | 150.0                          |                                | 150.0                          | 108.9                          | 41.1                                 |   |
| D-3 D                            | 79.7                           | 0.05     |          | 4.0                            |                                | 4.0                            | 0.1                            | 3.9                                  |   |
| D-3 E                            | 1 990.0                        | 0.40     |          | 796.0                          |                                | 796.0                          | 220.7                          | 575.3                                |   |
| D-3 F                            | 549.0                          | 0.25     |          | 137.0                          |                                | 137.0                          | 12.8                           | 124.2                                |   |
| FENN-BIG VALLEY<br>035-20W4      |                                |          |          |                                |                                |                                |                                |                                      |   |
| VIKING D                         | 185.0                          | 0.10     |          | 18.5                           |                                | 18.5                           | 0.6                            | 17.9                                 |   |
| BLAIRMORE B                      | 357.0                          | 0.01     |          | 3.6                            |                                | 3.6                            | 2.3                            | 1.3                                  |   |
| D-2 A TOTAL                      | 75 200.0                       |          |          | 51 300.0                       | 500.0                          | 51 800.0                       | 44 419.2                       | 7 380.8                              |   |
| PRIMARY AREA                     | 69 500.0                       | 0.70     |          | 48 700.0                       |                                | 48 700.0                       |                                |                                      |   |
| SOLVENT FLOOD AREA               | 5 670.0                        | <0.47    | 0.09     | 2 640.0                        | 500.0                          | 3 140.0                        |                                |                                      |   |
| D-2 B                            | 99.5                           | <0.02    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |   |
| BIG VALLEY D-3 A                 | 557.0                          | 0.75     |          | 418.0                          |                                | 418.0                          | 396.2                          | 21.8                                 |   |
| BIG VALLEY D-3 B                 | 261.0                          | 0.45     |          | 117.0                          |                                | 117.0                          | 86.3                           | 30.7                                 |   |
| FENN D-3 C                       | 110.0                          | 0.25     |          | 27.5                           |                                | 27.5                           | 18.2                           | 9.3                                  |   |
| FENN D-3 E                       | 329.0                          | 0.17     |          | 55.9                           |                                | 55.9                           | 43.3                           | 12.6                                 |   |
| FENN D-3 F                       | 3 000.0                        | 0.75     |          | 2 250.0                        |                                | 2 250.0                        | 1 930.1                        | 319.9                                |   |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 212   | 3.08                        | 0.180    | 0.28          | 0.79      | 14                             | 833               | 43   | 16 582              | 1 585.3                    | 1979         | 82 10                          |
| 64    | 2.70                        | 0.220    | 0.25          | 0.83      | 62                             | 835               | 43   | 16 366              | 1 575.7                    | 1981         | 84 12 - SUSP 83 07             |
| 64    | 3.50                        | 0.215    | 0.27          | 0.83      | 62                             | 835               | 43   | 16 333              | 1 568.0                    | 1981         | 84 12                          |
| 64    | 2.50                        | 0.120    | 0.25          | 0.88      | 36                             | 882               | 42   | 15 410              | 1 590.7                    | 1982         | 83 02                          |
| 64    | 4.30                        | 0.170    | 0.25          | 0.88      | 36                             | 882               | 42   | 16 251              | 1 582.5                    | 1982         | 83 02                          |
| 347   | 2.43                        | 0.130    | 0.35          | 0.88      | 36                             | 846               | 42   | 16 365              | 1 578.0                    | 1981         | 84 05                          |
| 64    | 3.00                        | 0.180    | 0.30          | 0.87      | 46                             | 833               | 73   | 16 439              | 1 607.5                    | 1982         | 82 10                          |
| 64    | 2.00                        | 0.110    | 0.30          | 0.88      | 36                             | 882               | 42   | 16 029              | 1 598.9                    | 1982         | 83 08                          |
| 64    | 1.40                        | 0.080    | 0.28          | 0.88      | 44                             | 854               | 42   | 13 115              | 1 614.3                    | 1982         | 83 08                          |
| 64    | 0.82                        | 0.040    | 0.30          | 0.88      | 44                             | 854               | 39   | 5 600               | 1 613.0                    | 1982         | 85 12                          |
| 64    | 1.70                        | 0.090    | 0.30          | 0.88      | 36                             | 845               | 42   | 14 804              | 1 632.9                    | 1983         | 84 02                          |
| 64    | 3.00                        | 0.170    | 0.17          | 0.88      | 44                             | 831               | 40   | 5 000               | 1 566.0                    | 1984         | 85 02                          |
| 42    | 2.20                        | 0.100    | 0.40          | 0.90      | 33                             | 833               | 43   | 16 464              | 1 597.4                    | 1982         | 85 05                          |
| 64    | 2.80                        | 0.210    | 0.45          | 0.87      | 45                             | 845               | 45   | 5 850               | 1 608.9                    | 1982         | 82 07                          |
| 16    | 5.00                        | 0.100    | 0.25          | 0.83      | 61                             | 833               | 44   | 16 704              | 1 607.5                    | 1982         | 85 05                          |
| 21    | 3.70                        | 0.130    | 0.45          | 0.90      | 34                             | 845               | 43   | 16 292              | 1 602.0                    | 1982         | 85 05                          |
| 64    | 6.50                        | 0.160    | 0.45          | 0.90      | 34                             | 845               | 43   | 16 940              | 1 608.3                    | 1982         | 83 08                          |
| 25    | 2.00                        | 0.150    | 0.48          | 0.90      | 64                             | 844               | 43   | 16 430              | 1 612.8                    | 1983         | 85 05                          |
| 379   | 2.56                        | 0.067    | 0.16          | 0.82      | 66                             | 855               | 66   | 12 480              | 1 637.7                    | 1960         | 75 12 - GPP                    |
| 673   | 4.80                        | 0.070    | 0.17          | 0.80      | 66                             | 876               | 66   | 12 550              | 2 292.7                    | 1953         | 79 02                          |
| 64    | 1.10                        | 0.040    | 0.50          | 0.80      | 66                             | 876               | 66   | 12 550              | 1 636.1                    | 1981         | 85 08                          |
| 322   | 4.18                        | 0.057    | 0.18          | 0.82      | 69                             | 870               | 60   | 13 100              | 1 670.0                    | 1953         | 79 12 - GPP                    |
| 32    | 18.50                       | 0.070    | 0.26          | 0.82      | 71                             | 844               | 58   | 12 453              | 1 668.9                    | 1980         | 84 10                          |
| 797   | 2.13                        | 0.204    | 0.35          | 0.80      | 30                             | 876               | 38   | 6 900               | 1 072.3                    | 1953         | 84 12 - SUSP 80 03             |
| 599   | 23.07                       | 0.060    | 0.15          | 0.88      | 39                             | 844               | 48   | 8 650               | 1 182.3                    | 1949         | 78 08 - GPP                    |
| 100   | 1.83                        | 0.200    | 0.20          | 0.80      | 43                             | 860               | 38   | 6 170               | 836.4                      | 1953         | 84 12 - GPP                    |
| 64    | 0.90                        | 0.200    | 0.60          | 0.80      | 43                             | 860               | 38   | 6 068               | 843.0                      | 1961         | 85 09                          |
| 32    | 5.80                        | 0.240    | 0.30          | 0.92      | 40                             | 909               | 38   | 6 605               | 1 049.6                    | 1953         | 84 04 - SUSP 84 03             |
| 112   | 7.94                        | 0.220    | 0.25          | 0.91      | 35                             | 887               | 42   | 7 250               | 1 066.2                    | 1965         | 81 12 - GPP                    |
| 32    | 6.00                        | 0.260    | 0.22          | 0.90      | 40                             | 900               | 32   | 7 221               | 1 066.8                    | 1976         | 85 07                          |
| 306   | 5.18                        | 0.083    | 0.15          | 0.92      | 27                             | 870               | 42   | 7 760               | 1 093.6                    | 1949         | 64 04 - ABAND 62 01            |
| 214   | 7.19                        | 0.057    | 0.17          | 0.92      | 27                             | 870               | 41   | 8 170               | 1 148.2                    | 1954         | 68 02 - GPP                    |
| 405   | 13.75                       | 0.063    | 0.15          | 0.93      | 33                             | 898               | 47   | 9 100               | 1 226.5                    | 1953         | 85 05                          |
| 64    | 2.40                        | 0.130    | 0.40          | 0.87      | 42                             | 890               | 70   | 8 726               | 1 220.8                    | 1976         | 82 09 - SUSP 80 12             |
| 5     | 7.93                        | 0.070    | 0.50          | 0.85      | 71                             | 855               | 44   | 7 660               | 1 422.2                    | 1977         | 79 10 - ABAND 81 02            |
| 1 202 | 6.40                        | 0.056    | 0.24          | 0.80      | 81                             | 860               | 61   | 12 410              | 1 699.9                    | 1961         | 84 11                          |
| 64    | 5.00                        | 0.090    | 0.35          | 0.82      | 20                             | 866               | 33   | 11 901              | 1 633.5                    | 1980         | 80 09 - ABAND 82 06            |
| 128   | 12.19                       | 0.070    | 0.22          | 0.81      | 73                             | 846               | 62   | 12 300              | 1 725.2                    | 1982         | 82 10                          |
| 64    | 14.10                       | 0.067    | 0.20          | 0.82      | 70                             | 847               | 63   | 12 435              | 1 743.4                    | 1982         | 83 04                          |
| 84    | 12.40                       | 0.058    | 0.22          | 0.84      | 73                             | 865               | 62   | 12 483              | 1 730.6                    | 1983         | 84 08                          |
| 64    | 15.50                       | 0.080    | 0.20          | 0.88      | 35                             | 849               | 55   | 12 891              | 1 783.2                    | 1982         | 82 10                          |
| 64    | 7.26                        | 0.048    | 0.15          | 0.81      | 89                             | 858               | 58   | 12 620              | 1 754.6                    | 1982         | 83 02                          |
| 14    | 40.20                       | 0.091    | 0.10          | 0.80      | 67                             | 860               | 61   | 13 018              | 1 809.9                    | 1982         | 85 03                          |
| 64    | 5.00                        | 0.040    | 0.25          | 0.83      | 67                             | 893               | 60   | 10 052              | 1 804.8                    | 1982         | 83 03 - SUSP 82 12             |
| 64    | 69.90                       | 0.067    | 0.18          | 0.81      | 76                             | 848               | 65   | 13 111              | 1 791.0                    | 1983         | 83 05                          |
| 64    | 21.60                       | 0.062    | 0.21          | 0.81      | 76                             | 861               | 67   | 12 176              | 1 801.8                    | 1984         | 85 04                          |
| 64    | 3.50                        | 0.170    | 0.40          | 0.81      | 70                             | 857               | 60   | 6 405               | 1 195.6                    | 1954         | 82 11 - SUSP 84 09             |
| 64    | 5.10                        | 0.200    | 0.25          | 0.73      | 90                             | 846               | 47   | 11 000              | 1 292.6                    | 1952         | 84 12 - SUSP 85 04             |
| 6 280 | 16.70                       | 0.110    | 0.11          | 0.81      | 77                             | 865               | 58   | 12 480              | 1 612.1                    | 1950         | 83 10                          |
| 5 248 | 9.62                        | 0.082    | 0.14          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 1 032 | 4.63                        | 0.060    | 0.30          | 0.80      | 78                             | 855               | 52   | 12 920              | 1 652.2                    | 1976         | 78 04 - SUSP 81 02             |
| 64    | 4.42                        | 0.051    | 0.20          | 0.82      | 76                             | 849               | 58   | 12 820              | 1 637.7                    | 1950         | 83 12 - GPP                    |
| 369   | 3.81                        | 0.085    | 0.15          | 0.80      | 80                             | 876               | 59   | 12 510              | 1 644.1                    | 1954         | 65 02 - GPP                    |
| 119   | 2.44                        | 0.067    | 0.18          | 0.81      | 73                             | 892               | 60   | 12 410              | 1 645.3                    | 1965         | 85 12                          |
| 101   | 3.05                        | 0.085    | 0.15          | 0.82      | 73                             | 865               | 58   | 12 760              | 1 620.3                    | 1953         | 81 12 - GPP                    |
| 182   | 6.64                        | 0.100    | 0.12          | 0.82      | 73                             | 898               | 61   | 12 690              | 1 651.7                    | 1954         | 84 11                          |
| 626   |                             |          |               |           |                                |                   |      |                     |                            |              |                                |



TABLE 2-4

| FIELD<br>POOL                           | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| FENN-BIG VALLEY<br>035-20W4 (CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| D-3 G                                   | 260.0                          | 0.25     |          | 65.0                           |                                | 65.0                           | 11.4                           | 53.6                                 |
| D-3 H                                   | 47.7                           | 0.25     |          | 11.9                           |                                | 11.9                           |                                | 11.9                                 |
| FERRIER 040-08W5                        |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                           | 4 130.0                        | <0.09    |          | 331.0                          |                                | 331.0                          | 259.0                          | 72.0                                 |
| BELLY RIVER B                           | 522.0                          | 0.05     |          | 26.0                           |                                | 26.0                           | 6.9                            | 19.1                                 |
| BELLY RIVER C                           | 358.0                          | 0.10     |          | 35.8                           |                                | 35.8                           | 16.2                           | 19.6                                 |
| BELLY RIVER D                           | 40.0                           | 0.10     |          | 4.0                            |                                | 4.0                            | 4.0                            |                                      |
| BELLY RIVER E                           | 937.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| BELLY RIVER F                           | 95.6                           | 0.08     |          | 7.6                            |                                | 7.6                            | 0.7                            | 6.9                                  |
| BELLY RIVER G                           | 798.0                          | 0.10     |          | 79.8                           |                                | 79.8                           | 13.0                           | 66.8                                 |
| BELLY RIVER H                           | 36.6                           | 0.10     |          | 3.7                            |                                | 3.7                            |                                | 3.7                                  |
| CARDIUM C                               | 64.5                           | 0.10     |          | 6.5                            |                                | 6.5                            | 5.8                            | 0.7                                  |
| CARDIUM D TOTAL                         | 18 900.0                       |          |          | 942.0                          | 2 660.0                        | 3 600.0                        | 1 591.6                        | 2 008.4                              |
| PRIMARY AREA                            | 1 240.0                        | 0.05     |          | 62.0                           |                                | 62.0                           |                                |                                      |
| WATER FLOOD AREA                        | 17 700.0                       | 0.05     | 0.15     | 880.0                          | 2 660.0                        | 3 540.0                        |                                |                                      |
| CARDIUM E TOTAL                         | 31 300.0                       |          |          | 2 480.0                        | 2 440.0                        | 4 920.0                        | 2 285.5                        | 2 634.5                              |
| PRIMARY AREA                            | 857.0                          | 0.05     |          | 43.0                           |                                | 43.0                           |                                |                                      |
| WATER FLOOD AREA                        | 30 400.0                       | 0.08     | 0.08     | 2 440.0                        | 2 440.0                        | 4 880.0                        |                                |                                      |
| CARDIUM F                               | 94.7                           | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| CARDIUM R                               | 40.6                           | <0.05    |          | 1.8                            |                                | 1.8                            | 1.8                            |                                      |
| CARDIUM U                               | 182.0                          | 0.10     |          | 18.2                           |                                | 18.2                           | 2.1                            | 16.1                                 |
| CARDIUM X                               | 185.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| CARDIUM BB                              | 140.0                          | 0.10     |          | 14.0                           |                                | 14.0                           | 0.2                            | 13.8                                 |
| CARDIUM GG                              | 126.0                          | 0.10     |          | 12.6                           |                                | 12.6                           | 0.1                            | 12.5                                 |
| CARDIUM G&L TOTAL                       | 23 200.0                       |          |          | 1 070.0                        | 2 500.0                        | 3 570.0                        | 878.1                          | 2 691.9                              |
| PRIMARY AREA                            | 4 550.0                        | 0.03     |          | 137.0                          |                                | 137.0                          |                                |                                      |
| WATER FLOOD AREA                        | 18 600.0                       | 0.05     | 0.14     | 930.0                          | 2 500.0                        | 3 430.0                        |                                |                                      |
| CARDIUM BN &<br>VIKING A                | 2 880.0                        | 0.15     |          | 432.0                          |                                | 432.0                          | 319.5                          | 112.5                                |
| VIKING C                                | 76.8                           | 0.15     |          | 11.5                           |                                | 11.5                           | 9.2                            | 2.3                                  |
| VIKING D                                | 65.9                           | 0.15     |          | 9.9                            |                                | 9.9                            | 4.3                            | 5.6                                  |
| VIKING E                                | 61.3                           | 0.10     |          | 6.1                            |                                | 6.1                            | 2.5                            | 3.6                                  |
| ROCK CREEK B                            | 107.0                          | 0.10     |          | 10.7                           |                                | 10.7                           | 0.2                            | 10.5                                 |
| SHUNDA A                                | 132.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| FERRYBANK 044-27W4                      |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER C                           | 997.0                          | 0.10     |          | 99.7                           |                                | 99.7                           | 5.0                            | 94.7                                 |
| LOWER MANNVILLE G                       | 226.0                          | <0.02    |          | 4.2                            |                                | 4.2                            | 4.2                            |                                      |
| LOWER MANNVILLE I                       | 449.0                          | <0.03    |          | 1.2                            |                                | 1.2                            | 1.2                            |                                      |
| FIR 059-21W5                            |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                               | 135.0                          | 0.10     |          | 13.5                           |                                | 13.5                           | 4.0                            | 9.5                                  |
| FIRE 113-07W6                           |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER A                             | 256.0                          | 0.10     |          | 25.6                           |                                | 25.6                           | 11.7                           | 13.9                                 |
| KEG RIVER B                             | 136.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| KEG RIVER C                             | 227.0                          | 0.20     |          | 45.4                           |                                | 45.4                           | 18.1                           | 27.3                                 |
| FOURTH 082-09W6                         |                                |          |          |                                |                                |                                |                                |                                      |
| HALFWAY A                               | 80.0                           | 0.10     |          | 8.0                            |                                | 8.0                            | 0.3                            | 7.7                                  |
| FOX CREEK 062-18W5                      |                                |          |          |                                |                                |                                |                                |                                      |
| GETHING B                               | 861.0                          | 0.03     |          | 25.8                           |                                | 25.8                           | 9.9                            | 15.9                                 |
| BEAVERHILL LAKE A                       | 1 500.0                        | 0.05     | 0.20     | 75.0                           | 300.0                          | 375.0                          | 179.6                          | 195.4                                |
| WATER FLOOD                             |                                |          |          |                                |                                |                                |                                |                                      |
| GALAHAD 041-15W4                        |                                |          |          |                                |                                |                                |                                |                                      |
| ELLERSLIE A                             | 112.0                          | 0.10     |          | 11.2                           |                                | 11.2                           | 2.0                            | 9.2                                  |
| CAMROSE A                               | 127.0                          | 0.15     |          | 19.1                           |                                | 19.1                           | 6.0                            | 13.1                                 |
| GARRINGTON 034-04W5                     |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM C                               | 376.0                          | 0.10     |          | 37.6                           |                                | 37.6                           | 27.4                           | 10.2                                 |
| CARDIUM F                               | 141.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| CARDIUM G                               | 114.0                          | <0.01    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| CARDIUM H                               | 23.8                           | <0.02    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| CARDIUM I                               | 197.0                          | 0.10     |          | 19.7                           |                                | 19.7                           | 4.5                            | 15.2                                 |
| CARDIUM J                               | 47.9                           | 0.10     |          | 4.8                            |                                | 4.8                            | 0.8                            | 4.0                                  |
| CARDIUM K                               | 124.0                          | 0.10     |          | 12.4                           |                                | 12.4                           | 4.5                            | 7.9                                  |
| CARDIUM L                               | 95.7                           | 0.10     |          | 9.6                            |                                | 9.6                            | 1.4                            | 8.2                                  |
| CARDIUM M                               | 181.0                          | 0.10     |          | 18.1                           |                                | 18.1                           |                                | 18.1                                 |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 128    | 3.40                        | 0.090    | 0.27          | 0.80      | 73                             | 904               | 41   | 12 560              | 1 584.7                    | 1952         | 84 12 - SUSP 84 12             |
| 16     | 3.10                        | 0.120    | 0.12          | 0.91      | 38                             | 960               | 57   | 11 725              | 1 646.5                    | 1983         | 83 09 - SUSP 85 02             |
| 1 212  | 4.51                        | 0.130    | 0.30          | 0.83      | 62                             | 820               | 59   | 9 620               | 1 713.3                    | 1967         | 77 05                          |
| 64     | 10.80                       | 0.130    | 0.30          | 0.83      | 62                             | 820               | 57   | 9 840               | 1 659.9                    | 1967         | 80 05                          |
| 65     | 7.32                        | 0.130    | 0.30          | 0.83      | 66                             | 829               | 54   | 8 430               | 1 627.0                    | 1975         | 76 01 - GPP                    |
| 64     | 1.45                        | 0.130    | 0.60          | 0.83      | 67                             | 898               | 57   | 7 681               | 1 717.6                    | 1980         | 84 12 - GPP                    |
| 64     | 12.00                       | 0.210    | 0.30          | 0.83      | 70                             | 898               | 50   | 9 866               | 1 715.5                    | 1980         | 84 12 - ABAND 82 07            |
| 64     | 3.00                        | 0.120    | 0.50          | 0.83      | 54                             | 830               | 57   | 8 965               | 1 615.8                    | 1982         | 83 04 - SUSP 85 08             |
| 256    | 6.10                        | 0.110    | 0.44          | 0.83      | 61                             | 835               | 55   | 9 262               | 1 699.0                    | 1982         | 84 03                          |
| 64     | 1.13                        | 0.111    | 0.45          | 0.83      | 61                             | 834               | 55   | 8 992               | 1 703.2                    | 1984         | 85 10                          |
| 69     | 1.40                        | 0.120    | 0.20          | 0.75      | 166                            | 806               | 71   | 23 170              | 2 184.5                    | 1961         | 82 12 - GPP                    |
| 6 912  | 3.21                        | 0.130    | 0.12          | 0.66      | 169                            | 825               | 77   | 21 510              | 2 093.4                    | 1963         | 85 08                          |
| 512    | 3.15                        | 0.151    | 0.12          | 0.66      |                                |                   |      |                     |                            |              |                                |
| 6 400  | 3.15                        | 0.151    | 0.12          | 0.66      |                                |                   |      |                     |                            |              |                                |
| 6 285  |                             |          |               |           | 198                            | 811               | 54   | 21 750              | 2 135.4                    | 1966         | 85 08                          |
| 448    | 2.45                        | 0.148    | 0.12          | 0.60      |                                |                   |      |                     |                            |              |                                |
| 5 837  | 6.66                        | 0.148    | 0.12          | 0.60      |                                |                   |      |                     |                            |              |                                |
| 65     | 1.52                        | 0.140    | 0.12          | 0.78      | 133                            | 834               | 52   | 21 130              | 2 008.6                    | 1958         | 69 05 - SUSP 68 11             |
| 64     | 1.50                        | 0.080    | 0.20          | 0.66      | 209                            | 817               | 74   | 23 240              | 2 318.0                    | 1976         | 83 12 - SUSP 80 08             |
| 64     | 5.52                        | 0.096    | 0.20          | 0.67      | 218                            | 824               | 71   | 24 764              | 2 283.4                    | 1976         | 81 02 - GPP                    |
| 64     | 4.40                        | 0.123    | 0.15          | 0.63      | 175                            |                   | 75   | 21 239              | 2 204.6                    | 1980         | 83 12 - SUSP 81 11             |
| 64     | 2.95                        | 0.140    | 0.20          | 0.66      | 150                            | 813               | 70   | 20 153              | 2 303.7                    | 1976         | 82 05 - SUSP 82 06             |
| 64     | 2.40                        | 0.140    | 0.15          | 0.69      | 180                            | 806               | 70   | 21 760              | 2 199.0                    | 1980         | 84 10 - SUSP 84 08             |
| 10 008 |                             |          |               |           | 190                            | 806               | 70   | 21 600              | 2 180.3                    | 1967         | 85 08                          |
| 2 029  | 3.35                        | 0.125    | 0.15          | 0.63      |                                |                   |      |                     |                            |              |                                |
| 7 979  | 3.30                        | 0.132    | 0.15          | 0.63      |                                |                   |      |                     |                            |              |                                |
| 6 066  | 1.50                        | 0.078    | 0.30          | 0.58      | 273                            | 811               | 78   | 28 750              | 2 499.1                    | 1955         | 84 12 - GPP                    |
| 64     | 2.50                        | 0.100    | 0.20          | 0.60      | 190                            |                   | 73   | 26 204              | 2 461.8                    | 1979         | 83 12                          |
| 64     | 3.00                        | 0.075    | 0.25          | 0.61      | 217                            | 823               | 81   | 26 080              | 2 377.9                    | 1982         | 85 12                          |
| 64     | 2.00                        | 0.090    | 0.25          | 0.71      | 134                            | 836               | 93   | 25 610              | 2 502.0                    | 1979         | 84 10                          |
| 64     | 3.50                        | 0.085    | 0.24          | 0.74      | 120                            | 828               | 70   | 19 000              | 2 563.9                    | 1982         | 83 04 - SUSP 83 05             |
| 65     | 5.18                        | 0.083    | 0.25          | 0.63      | 195                            | 815               | 81   | 22 510              | 2 502.7                    | 1965         | 67 04 - ABAND 67 11            |
| 128    | 9.30                        | 0.200    | 0.54          | 0.91      | 35                             | 850               | 30   | 5 376               | 998.0                      | 1985         | 85 06                          |
| 64     | 4.00                        | 0.160    | 0.31          | 0.80      | 82                             | 860               | 60   | 10 430              | 1 705.0                    | 1979         | 79 10 - SUSP 82 07             |
| 64     | 6.00                        | 0.190    | 0.23          | 0.80      | 76                             | 894               | 57   | 12 491              | 1 682.0                    | 1982         | 83 04 - SUSP 83 05             |
| 64     | 3.70                        | 0.100    | 0.25          | 0.76      | 107                            | 850               | 56   | 20 602              | 1 854.7                    | 1977         | 81 02                          |
| 22     | 61.70                       | 0.035    | 0.30          | 0.77      | 95                             | 844               | 77   | 15 540              | 1 546.9                    | 1969         | 80 09 - GPP                    |
| 20     | 36.58                       | 0.034    | 0.30          | 0.77      | 95                             | 849               | 77   | 15 420              | 1 539.5                    | 1970         | 71 12 - ABAND 71 10            |
| 17     | 53.16                       | 0.040    | 0.20          | 0.77      | 95                             | 844               | 77   | 15 090              | 1 533.8                    | 1969         | 82 12 - GPP                    |
| 64     | 1.75                        | 0.113    | 0.21          | 0.80      | 76                             | 844               | 54   | 9 200               | 1 295.1                    | 1979         | 85 11                          |
| 128    | 8.94                        | 0.140    | 0.36          | 0.84      | 64                             | 882               | 59   | 13 930              | 1 929.8                    | 1977         | 85 08                          |
| 825    | 6.31                        | 0.090    | 0.20          | 0.40      | 530                            |                   | 110  | 28 730              | 3 086.7                    | 1976         | 80 03                          |
| 16     | 4.30                        | 0.240    | 0.20          | 0.85      | 60                             | 887               | 40   | 7 300               | 1 055.2                    | 1983         | 83 04 - GPP                    |
| 32     | 5.90                        | 0.120    | 0.30          | 0.80      | 80                             | 929               | 51   | 8 665               | 1 173.5                    | 1983         | 84 06                          |
| 287    | 2.10                        | 0.100    | 0.18          | 0.76      | 109                            | 829               | 66   | 20 000              | 1 878.8                    | 1960         | 82 12 - GPP                    |
| 64     | 2.70                        | 0.120    | 0.15          | 0.80      | 68                             | 820               | 75   | 8 300               | 1 852.9                    | 1981         | 82 05 - ABAND 82 03            |
| 64     | 3.00                        | 0.100    | 0.25          | 0.79      | 90                             | 820               | 60   | 11 050              | 1 846.9                    | 1981         | 82 06 - ABAND 84 05            |
| 128    | 0.56                        | 0.060    | 0.30          | 0.79      | 85                             | 828               | 60   | 11 000              | 1 837.4                    | 1982         | 83 03 - ABAND 84 05            |
| 128    | 2.83                        | 0.080    | 0.15          | 0.80      | 89                             | 823               | 59   | 23 123              | 1 863.5                    | 1982         | 84 09                          |
| 64     | 1.80                        | 0.080    | 0.35          | 0.80      | 89                             | 822               | 59   | 23 123              | 1 820.8                    | 1982         | 83 11                          |
| 64     | 2.40                        | 0.150    | 0.28          | 0.75      | 96                             | 828               | 68   | 18 614              | 1 888.5                    | 1976         | 84 09                          |
| 64     | 2.00                        | 0.110    | 0.15          | 0.80      | 89                             | 822               | 59   | 23 183              | 1 832.3                    | 1983         | 84 10                          |
| 128    | 2.30                        | 0.110    | 0.30          | 0.80      | 48                             | 843               | 67   | 9 253               | 1 855.4                    | 1984         | 85 04                          |



TABLE 2-4

| FIELD<br>POOL                      | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                    | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                    |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                    | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| GARRINGTON 034-04W5<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM N                          | 74.8                           | 0.10     |          | 7.5                            |                                | 7.5                            | 2.0                            | 5.5                                  |
| CARDIUM O                          | 266.0                          | 0.10     |          | 26.6                           |                                | 26.6                           |                                | 26.6                                 |
| CARDIUM A&B TOTAL                  | 31 600.0                       |          |          | 1 580.0                        | 1 650.0                        | 3 230.0                        | 2 692.9                        | 537.1                                |
| PRIMARY AREA                       | 11 400.0                       | 0.05     |          | 570.0                          |                                | 570.0                          |                                |                                      |
| WATER FLOOD AREA                   | 20 200.0                       | 0.05     | 0.08     | 1 010.0                        | 1 650.0                        | 2 660.0                        |                                |                                      |
| SECOND WHITE<br>SPECKS A           | 87.5                           | 0.10     |          | 8.8                            |                                | 8.8                            | 1.8                            | 7.0                                  |
| SECOND WHITE<br>SPECKS B           | 97.6                           | 0.15     |          | 14.6                           |                                | 14.6                           |                                | 14.6                                 |
| SECOND WHITE<br>SPECKS C           | 425.0                          | 0.10     |          | 42.5                           |                                | 42.5                           |                                | 42.5                                 |
| VIKING A                           | 13 000.0                       | 0.10     |          | 1 300.0                        |                                | 1 300.0                        | 422.6                          | 877.4                                |
| VIKING C                           | 132.0                          | 0.10     |          | 13.2                           |                                | 13.2                           | 2.5                            | 10.7                                 |
| VIKING F                           | 302.0                          | 0.10     |          | 30.2                           |                                | 30.2                           | 23.2                           | 7.0                                  |
| VIKING G                           | 183.0                          | 0.10     |          | 18.3                           |                                | 18.3                           | 1.6                            | 16.7                                 |
| VIKING J                           | 32.3                           | 0.10     |          | 3.2                            |                                | 3.2                            | 2.9                            | 0.3                                  |
| VIKING K                           | 98.6                           | 0.10     |          | 9.9                            |                                | 9.9                            | 4.5                            | 5.4                                  |
| VIKING L                           | 197.0                          | 0.10     |          | 19.7                           |                                | 19.7                           | 2.6                            | 17.1                                 |
| VIKING N                           | 207.0                          | 0.10     |          | 20.7                           |                                | 20.7                           |                                | 20.7                                 |
| MANNVILLE B                        | 9 720.0                        | 0.07     |          | 680.0                          |                                | 680.0                          | 627.8                          | 52.2                                 |
| MANNVILLE D                        | 2 600.0                        | 0.07     |          | 182.0                          |                                | 182.0                          | 134.5                          | 47.5                                 |
| MANNVILLE I                        | 494.0                          | 0.10     |          | 49.4                           |                                | 49.4                           | 23.4                           | 26.0                                 |
| MANNVILLE L                        | 15.3                           | 0.10     |          | 1.6                            |                                | 1.6                            |                                | 1.6                                  |
| LOWER MANNVILLE A                  | 83.0                           | <0.02    |          | 1.4                            |                                | 1.4                            | 1.4                            |                                      |
| LOWER MANNVILLE B                  | 37.8                           | <0.03    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| LOWER MANNVILLE D                  | 83.6                           | <0.05    |          | 4.0                            |                                | 4.0                            | 4.0                            |                                      |
| LOWER MANNVILLE E                  | 403.0                          | 0.03     |          | 12.1                           |                                | 12.1                           | 3.0                            | 9.1                                  |
| LOWER MANNVILLE I                  | 257.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| LOWER MANNVILLE J                  | 130.0                          | 0.03     |          | 3.9                            |                                | 3.9                            | 2.4                            | 1.5                                  |
| LOWER MANNVILLE P                  | 63.0                           | 0.10     |          | 6.3                            |                                | 6.3                            | 1.9                            | 4.4                                  |
| LOWER MANNVILLE Q                  | 480.0                          | 0.10     |          | 48.0                           |                                | 48.0                           | 5.4                            | 42.6                                 |
| LOWER MANNVILLE S                  | 163.0                          | 0.10     |          | 16.3                           |                                | 16.3                           | 0.9                            | 15.4                                 |
| LOWER MANNVILLE T                  | 150.0                          | 0.10     |          | 16.0                           |                                | 16.0                           | 0.6                            | 15.4                                 |
| LOWER MANNVILLE U                  | 69.6                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| LOWER MANNVILLE Y                  | 128.0                          | 0.10     |          | 12.8                           |                                | 12.8                           | 1.9                            | 10.9                                 |
| LOWER MANNVILLE Z                  | 446.0                          | 0.10     |          | 44.6                           |                                | 44.6                           | 3.2                            | 41.4                                 |
| LOWER MANNVILLE N&O                | 450.0                          | 0.10     |          | 45.0                           |                                | 45.0                           |                                | 45.0                                 |
| ELKTON-SHUNDA A                    | 52.5                           | <0.02    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| WABAMUN A                          | 6 470.0                        | 0.20     |          | 1 290.0                        |                                | 1 290.0                        | 1 065.4                        | 224.6                                |
| GENESEE 050-03W5                   |                                |          |          |                                |                                |                                |                                |                                      |
| ELLERSLIE A                        | 26.6                           | 0.05     |          | 1.3                            |                                | 1.3                            |                                | 1.3                                  |
| GEORGE 082-05W6                    |                                |          |          |                                |                                |                                |                                |                                      |
| DEBOLT B                           | 126.0                          | 0.01     |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| GHOST PINE 031-22W4                |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE Q                  | 249.0                          | 0.10     |          | 24.9                           |                                | 24.9                           | 13.4                           | 11.5                                 |
| UPPER MANNVILLE V                  | 1 010.0                        | <0.02    |          | 16.0                           |                                | 16.0                           | 16.0                           |                                      |
| UPPER MANNVILLE W                  | 200.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| UPPER MANNVILLE HH                 | 281.0                          | 0.07     |          | 19.7                           |                                | 19.7                           | 15.3                           | 4.4                                  |
| UPPER MANNVILLE LL                 | 132.0                          | 0.05     |          | 6.6                            |                                | 6.6                            | 3.4                            | 3.2                                  |
| UPPER MANNVILLE NN                 | 116.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| UPPER MANNVILLE RR                 | 264.0                          | 0.10     |          | 26.4                           |                                | 26.4                           | 3.7                            | 22.7                                 |
| UPPER MANNVILLE WW                 | 50.4                           | 0.10     |          | 5.0                            |                                | 5.0                            | 1.6                            | 3.4                                  |
| UPPER MANNVILLE YY                 | 112.0                          | 0.10     |          | 11.2                           |                                | 11.2                           | 1.7                            | 9.5                                  |
| UPPER MANNVILLE<br>CGHP&U          | 202.0                          | <0.04    |          | 6.6                            |                                | 6.6                            | 6.6                            |                                      |
| LOWER MANNVILLE B                  | 424.0                          | 0.05     |          | 21.0                           |                                | 21.0                           | 19.0                           | 2.0                                  |
| LOWER MANNVILLE E                  | 115.0                          | 0.13     |          | 14.9                           |                                | 14.9                           | 13.5                           | 1.4                                  |
| LOWER MANNVILLE J                  | 159.0                          | 0.10     |          | 15.9                           |                                | 15.9                           | 5.8                            | 10.1                                 |
| LOWER MANNVILLE K                  | 137.0                          | 0.10     |          | 13.7                           |                                | 13.7                           | 4.4                            | 9.3                                  |
| LOWER MANNVILLE L                  | 675.0                          | 0.15     |          | 101.0                          |                                | 101.0                          | 72.2                           | 28.8                                 |
| LOWER MANNVILLE N                  | 88.7                           | 0.15     |          | 13.3                           |                                | 13.3                           | 4.0                            | 9.3                                  |
| LOWER MANNVILLE A&H                | 362.0                          | 0.08     |          | 29.0                           |                                | 29.0                           | 21.8                           | 7.2                                  |
| PEKISKD F                          | 110.0                          | 0.10     |          | 11.0                           |                                | 11.0                           | 9.8                            | 1.2                                  |
| PEKISKD K                          | 305.0                          | 0.02     |          | 6.1                            |                                | 6.1                            | 3.1                            | 3.0                                  |
| PEKISKD N                          | 202.0                          | 0.10     |          | 20.2                           |                                | 20.2                           | 3.5                            | 16.7                                 |
| PEKISKD P                          | 77.4                           | 0.10     |          | 7.7                            |                                | 7.7                            | 1.5                            | 6.2                                  |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 128    | 1.30                        | 0.078    | 0.28          | 0.80      | 48                             | 843               | 67   | 9 253               | 1 870.3                    | 1979         | 85 04                          |
| 128    | 3.10                        | 0.100    | 0.15          | 0.79      | 88                             | 819               | 60   | 13 293              | 1 945.8                    | 1984         | 85 05                          |
| 15 434 |                             |          |               |           | 109                            | 829               | 64   | 24 550              | 2 022.0                    | 1954         | 84 06                          |
| 5 521  | 3.24                        | 0.100    | 0.15          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 9 913  | 3.20                        | 0.100    | 0.15          | 0.75      |                                |                   |      |                     |                            |              | - GPP                          |
| 64     | 3.20                        | 0.090    | 0.35          | 0.73      | 115                            | 823               | 64   | 17 307              | 2 314.1                    | 1981         | 83 02                          |
| 64     | 8.70                        | 0.030    | 0.20          | 0.73      | 110                            | 815               | 70   | 14 000              | 2 202.7                    | 1984         | 85 08                          |
| 64     | 13.00                       | 0.100    | 0.30          | 0.73      | 110                            | 819               | 67   | 14 050              | 2 105.5                    | 1984         | 85 10                          |
| 3 264  | 7.44                        | 0.100    | 0.37          | 0.85      | 57                             | 841               | 64   | 9 336               | 2 095.5                    | 1978         | 85 01                          |
| 64     | 3.60                        | 0.105    | 0.35          | 0.84      | 51                             | 841               | 71   | 10 052              | 2 382.2                    | 1982         | 83 04                          |
| 65     | 6.71                        | 0.120    | 0.30          | 0.83      | 128                            | 820               | 53   | 8 960               | 2 002.6                    | 1963         | 73 12 - GPP                    |
| 64     | 4.80                        | 0.100    | 0.29          | 0.84      | 51                             | 842               | 71   | 7 895               | 2 117.0                    | 1983         | 83 07                          |
| 64     | 1.51                        | 0.053    | 0.25          | 0.84      | 51                             | 842               | 71   | 8 937               | 2 081.6                    | 1983         | 84 09                          |
| 64     | 3.26                        | 0.084    | 0.33          | 0.84      | 51                             | 840               | 71   | 17 241              | 2 286.4                    | 1979         | 85 01                          |
| 64     | 7.35                        | 0.087    | 0.35          | 0.74      | 110                            | 832               | 71   | 8 117               | 2 001.2                    | 1981         | 82 03                          |
| 64     | 5.00                        | 0.110    | 0.30          | 0.84      | 68                             | 835               | 75   | 11 500              | 2 362.9                    | 1984         | 85 06                          |
| 5 433  | 4.11                        | 0.128    | 0.15          | 0.40      | 385                            | 797               | 68   | 32 000              | 2 405.8                    | 1963         | 81 12 - GPP                    |
| 1 984  | 2.48                        | 0.106    | 0.22          | 0.64      | 85                             | 874               | 60   | 27 421              | 2 560.8                    | 1980         | 85 02                          |
| 128    | 4.60                        | 0.160    | 0.18          | 0.64      | 181                            | 864               | 81   | 29 203              | 2 614.0                    | 1982         | 84 05                          |
| 64     | 0.40                        | 0.110    | 0.14          | 0.64      | 250                            | 821               | 97   | 8 117               | 2 564.4                    | 1984         | 85 10                          |
| 65     | 2.74                        | 0.110    | 0.15          | 0.50      | 301                            | 829               | 64   | 23 080              | 2 512.5                    | 1974         | 75 11 - GPP                    |
| 65     | 1.83                        | 0.080    | 0.20          | 0.50      | 301                            | 825               | 64   | 28 440              | 2 464.3                    | 1975         | 76 02 - ABAND 75 06            |
| 64     | 2.16                        | 0.090    | 0.16          | 0.80      | 106                            | 839               | 71   | 28 820              | 2 442.0                    | 1977         | 84 07 - ABAND 83 12            |
| 64     | 10.00                       | 0.120    | 0.30          | 0.75      | 96                             | 845               | 86   | 25 806              | 2 639.0                    | 1979         | 82 12 - GPP                    |
| 64     | 6.50                        | 0.110    | 0.25          | 0.75      | 110                            | 855               | 63   | 21 495              | 2 553.1                    | 1981         | 84 12 - ABAND 82 10            |
| 64     | 1.50                        | 0.200    | 0.10          | 0.75      | 100                            | 821               | 83   | 24 775              | 2 642.9                    | 1982         | 83 12                          |
| 64     | 1.25                        | 0.140    | 0.25          | 0.75      | 120                            | 841               | 64   | 18 824              | 2 440.8                    | 1982         | 83 01                          |
| 256    | 2.70                        | 0.110    | 0.21          | 0.80      | 152                            | 843               | 82   | 28 269              | 2 618.1                    | 1982         | 85 05                          |
| 64     | 3.90                        | 0.120    | 0.20          | 0.68      | 152                            | 843               | 82   | 28 030              | 2 386.1                    | 1982         | 83 04 - SUSP 83 11             |
| 64     | 3.50                        | 0.130    | 0.19          | 0.68      | 152                            | 843               | 82   | 27 038              | 2 596.8                    | 1982         | 83 07                          |
| 64     | 2.50                        | 0.080    | 0.20          | 0.68      | 152                            | 843               | 82   | 26 376              | 2 553.8                    | 1983         | 84 07 - ABAND 83 11            |
| 64     | 3.30                        | 0.095    | 0.15          | 0.75      | 152                            | 841               | 82   | 25 911              | 2 716.8                    | 1984         | 84 12                          |
| 64     | 10.20                       | 0.120    | 0.21          | 0.72      | 152                            | 841               | 82   | 23 078              | 2 712.9                    | 1984         | 84 12                          |
| 430    | 1.34                        | 0.126    | 0.17          | 0.75      | 158                            | 845               | 82   | 28 094              | 2 562.8                    | 1981         | 85 07                          |
| 64     | 2.00                        | 0.072    | 0.15          | 0.67      | 140                            | 845               | 82   | 19 218              | 2 402.0                    | 1979         | 83 12 - SUSP 81 01             |
| 2 912  | 10.61                       | 0.055    | 0.32          | 0.56      | 271                            | 934               | 84   | 24 730              | 2 742.0                    | 1965         | 84 12 - GPP                    |
| 64     | 0.80                        | 0.100    | 0.35          | 0.80      | 85                             | 850               | 45   | 16 673              | 1 538.1                    | 1983         | 84 09                          |
| 64     | 4.00                        | 0.090    | 0.30          | 0.78      | 99                             | 829               | 52   | 15 570              | 1 524.5                    | 1976         | 83 12 - SUSP 81 10             |
| 65     | 3.96                        | 0.200    | 0.40          | 0.81      | 80                             | 876               | 53   | 10 410              | 1 507.5                    | 1967         | 68 12 - GPP                    |
| 227    | 3.94                        | 0.210    | 0.37          | 0.85      | 67                             | 855               | 58   | 10 420              | 1 481.9                    | 1966         | 79 03 - SUSP 74 08             |
| 65     | 3.29                        | 0.146    | 0.25          | 0.86      | 61                             | 870               | 41   | 10 250              | 1 396.9                    | 1966         | 66 05 - SUSP 66 09             |
| 64     | 6.40                        | 0.140    | 0.40          | 0.81      | 80                             | 876               | 53   | 10 510              | 1 498.4                    | 1967         | 82 12 - GPP                    |
| 64     | 2.14                        | 0.186    | 0.39          | 0.85      | 55                             | 820               | 66   | 10 000              | 1 372.8                    | 1973         | 75 12                          |
| 64     | 1.83                        | 0.170    | 0.32          | 0.85      | 64                             | 855               | 43   | 10 270              | 1 390.8                    | 1974         | 79 06 - SUSP 79 04             |
| 64     | 3.55                        | 0.182    | 0.25          | 0.85      | 58                             | 874               | 58   | 9 277               | 1 488.8                    | 1980         | 81 06                          |
| 64     | 0.90                        | 0.180    | 0.40          | 0.81      | 66                             | 851               | 40   | 9 900               | 1 359.3                    | 1982         | 84 03                          |
| 64     | 3.00                        | 0.110    | 0.34          | 0.80      | 76                             | 862               | 57   | 11 500              | 1 503.0                    | 1983         | 84 11                          |
| 129    | 1.43                        | 0.176    | 0.27          | 0.85      | 71                             | 865               | 49   | 10 490              | 1 410.9                    | 1966         | 76 12 - GPP                    |
| 64     | 5.86                        | 0.190    | 0.30          | 0.85      | 58                             | 892               | 48   | 10 670              | 1 443.5                    | 1959         | 79 12 - GPP                    |
| 65     | 1.52                        | 0.180    | 0.25          | 0.86      | 51                             | 892               | 49   | 10 290              | 1 487.4                    | 1966         | 85 06 - GPP                    |
| 128    | 1.72                        | 0.130    | 0.34          | 0.84      | 62                             | 876               | 56   | 10 980              | 1 572.9                    | 1977         | 79 06                          |
| 65     | 2.44                        | 0.150    | 0.32          | 0.85      | 62                             | 881               | 49   | 11 030              | 1 570.3                    | 1977         | 78 10                          |
| 64     | 7.39                        | 0.210    | 0.20          | 0.85      |                                | 861               | 60   | 10 250              | 1 489.6                    | 1972         | 75 12                          |
| 64     | 3.30                        | 0.100    | 0.50          | 0.84      | 60                             | 861               | 61   | 10 245              | 1 509.2                    | 1981         | 81 08                          |
| 128    | 4.16                        | 0.180    | 0.55          | 0.84      | 62                             | 865               | 50   | 10 500              | 1 427.7                    | 1965         | 81 12 - GPP                    |
| 32     | 12.19                       | 0.054    | 0.40          | 0.86      | 62                             | 870               | 54   | 10 970              | 1 421.3                    | 1965         | 74 03 - GPP                    |
| 64     | 17.00                       | 0.050    | 0.30          | 0.80      | 91                             | 813               | 52   | 10 362              | 1 472.9                    | 1979         | 85 12 - GPP                    |
| 64     | 10.50                       | 0.050    | 0.30          | 0.86      | 58                             | 86                | 40   | 10 320              | 1 417.1                    | 1981         | 82 04 - GPP                    |
| 64     | 2.70                        | 0.070    | 0.20          | 0.80      | 79                             | 877               | 55   | 10 909              | 1 645.6                    | 1981         | 84 02                          |



TABLE 2-4

| FIELD<br>POOL               | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                             | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                             |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                             | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>GIFT 079-11W5</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A               | 8 000.0                        | 0.15     |          | 1 200.0                        |                                | 1 200.0                        | 190.1                          | 1 009.9                              |
| SLAVE POINT C               | 2 790.0                        | 0.15     |          | 419.0                          |                                | 419.0                          | 18.7                           | 400.3                                |
| SLAVE POINT D               | 181.0                          | 0.15     |          | 27.2                           |                                | 27.2                           | 1.1                            | 26.1                                 |
| SLAVE POINT E               | 469.0                          | 0.15     |          | 70.4                           |                                | 70.4                           | 2.3                            | 68.1                                 |
| GILWOOD A                   | 134.0                          | 0.10     |          | 13.4                           |                                | 13.4                           | 3.4                            | 10.0                                 |
| GILWOOD D                   | 276.0                          | 0.15     |          | 41.4                           |                                | 41.4                           | 5.8                            | 35.6                                 |
| GILWOOD E                   | 954.0                          | 0.25     |          | 239.0                          |                                | 239.0                          | 33.7                           | 205.3                                |
| GILWOOD F                   | 351.0                          | 0.25     |          | 90.3                           |                                | 90.3                           | 8.4                            | 81.9                                 |
| GILWOOD G                   | 476.0                          | 0.25     |          | 119.0                          |                                | 119.0                          | 11.4                           | 107.6                                |
| GRANITE WASH A              | 72.7                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| GRANITE WASH C              | 65.0                           | 0.20     |          | 13.0                           |                                | 13.0                           | 0.8                            | 12.2                                 |
| <b>GILBY 041-03W5</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A               | 286.0                          | 0.07     |          | 20.0                           |                                | 20.0                           | 17.8                           | 2.2                                  |
| BELLY RIVER B               | 565.0                          | 0.10     |          | 56.5                           |                                | 56.5                           | 30.8                           | 25.7                                 |
| BELLY RIVER C               | 485.0                          | 0.01     |          | 4.9                            |                                | 4.9                            | 1.2                            | 3.7                                  |
| BELLY RIVER E               | 338.0                          | 0.02     |          | 6.8                            |                                | 6.8                            | 0.9                            | 5.9                                  |
| CARDIUM A                   | 170.0                          | 0.10     |          | 17.0                           |                                | 17.0                           | 15.4                           | 1.6                                  |
| CARDIUM D                   | 84.5                           | 0.10     |          | 8.5                            |                                | 8.5                            |                                | 8.5                                  |
| VIKING A TOTAL              | 6 360.0                        |          |          | 1 240.0                        | 1 220.0                        | 2 470.0                        | 2 436.5                        | 33.5                                 |
| PRIMARY AREA                | 239.0                          | 0.10     |          | 23.9                           |                                | 23.9                           |                                |                                      |
| WATER FLOOD AREA            | 6 120.0                        | 0.20     | 0.20     | 1 220.0                        | 1 220.0                        | 2 450.0                        |                                |                                      |
| VIKING B TOTAL              | 1 440.0                        |          |          | 412.0                          | 184.0                          | 596.0                          | 519.9                          | 76.1                                 |
| PRIMARY AREA                | 30.5                           | 0.10     |          | 3.1                            |                                | 3.1                            |                                |                                      |
| WATER FLOOD AREA            | 1 410.0                        | 0.29     | 0.13     | 409.0                          | 184.0                          | 593.0                          |                                |                                      |
| VIKING C                    | 229.0                          | 0.20     |          | 46.1                           |                                | 46.1                           | 33.2                           | 12.9                                 |
| VIKING F                    | 68.7                           | 0.15     |          | 10.3                           |                                | 10.3                           | 8.3                            | 2.0                                  |
| VIKING G                    | 61.2                           | <0.02    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| VIKING H                    | 19.8                           | 0.10     |          | 2.0                            |                                | 2.0                            | 0.4                            | 1.6                                  |
| VIKING I                    | 178.0                          | 0.20     |          | 35.6                           |                                | 35.6                           | 11.9                           | 23.7                                 |
| BASAL MANNVILLE B<br>TOTAL  | 7 000.0                        |          |          | 868.0                          | 805.0                          | 1 670.0                        | 930.4                          | 739.6                                |
| PRIMARY AREA                | 1 250.0                        | 0.05     |          | 62.5                           |                                | 62.5                           |                                |                                      |
| WATER FLOOD AREA            | 5 750.0                        | 0.14     | 0.14     | 805.0                          | 805.0                          | 1 610.0                        |                                |                                      |
| BASAL MANNVILLE F           | 28.0                           | <0.03    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| BASAL MANNVILLE G           | 75.3                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BASAL MANNVILLE D           | 103.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| BASAL MANNVILLE R           | 1 700.0                        | 0.10     |          | 170.0                          |                                | 170.0                          | 36.0                           | 134.0                                |
| BASAL MANNVILLE S           | 493.0                          | 0.07     |          | 34.5                           |                                | 34.5                           | 16.7                           | 17.8                                 |
| BASAL MANNVILLE U           | 117.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BASAL MANNVILLE X           | 376.0                          | 0.10     |          | 37.6                           |                                | 37.6                           | 1.7                            | 35.9                                 |
| BASAL MANNVILLE Y           | 93.6                           | 0.10     |          | 9.4                            |                                | 9.4                            |                                | 9.4                                  |
| BASAL MANNVILLE H&L         | 1 290.0                        | 0.05     |          | 64.5                           |                                | 64.5                           | 36.1                           | 28.4                                 |
| JUR E & UP MANN A           |                                |          |          |                                |                                |                                |                                |                                      |
| JURASSIC B TOTAL            | 12 200.0                       |          |          | 1 470.0                        | 2 190.0                        | 3 670.0                        | 2 453.2                        | 1 216.8                              |
| PRIMARY AREA                | 33.3                           | <0.01    |          | 0.3                            |                                | 0.3                            |                                |                                      |
| WATER FLOOD AREA            | 12 200.0                       | <0.13    | 0.18     | 1 470.0                        | 2 190.0                        | 3 670.0                        |                                |                                      |
| JURASSIC F                  | 1 750.0                        | 0.15     | 0.25     | 264.0                          | 442.0                          | 706.0                          | 357.0                          | 349.0                                |
| WATER FLOOD                 |                                |          |          |                                |                                |                                |                                |                                      |
| JURASSIC I                  | 610.0                          | 0.05     |          | 30.5                           |                                | 30.5                           | 18.6                           | 11.9                                 |
| JURASSIC J                  | 443.0                          | 0.10     |          | 44.3                           |                                | 44.3                           | 26.4                           | 17.9                                 |
| JURASSIC L                  | 686.0                          | 0.10     |          | 68.6                           |                                | 68.6                           | 10.2                           | 58.4                                 |
| RUNDLE B                    | 175.0                          | <0.02    |          | 2.0                            |                                | 2.0                            | 2.0                            |                                      |
| RUNDLE E                    | 140.0                          | <0.07    |          | 8.7                            |                                | 8.7                            | 8.7                            |                                      |
| RUNDLE F                    | 447.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| RUNDLE L                    | 300.0                          | 0.03     |          | 9.0                            |                                | 9.0                            | 5.4                            | 3.6                                  |
| RUNDLE M                    | 139.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| RUNDLE N                    | 67.4                           | 0.10     |          | 6.7                            |                                | 6.7                            |                                | 6.7                                  |
| RUNDLE O                    | 311.0                          | 0.05     |          | 15.6                           |                                | 15.6                           | 6.7                            | 8.9                                  |
| BANFF A                     | 188.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| NISKU A                     | 121.0                          | <0.02    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| <b>GILWOOD 073-18W5</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| GILWOOD A                   | 442.0                          | 0.35     |          | 155.0                          |                                | 155.0                          | 102.2                          | 52.8                                 |
| GILWOOD B                   | 287.0                          | 0.30     |          | 86.1                           |                                | 86.1                           | 2.0                            | 84.1                                 |
| <b>GIRDUX LAKE 066-21W5</b> |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A TOTAL              | 735.0                          |          |          | 119.0                          | 121.0                          | 240.0                          | 187.9                          | 52.1                                 |
| PRIMARY AREA                | 99.3                           | 0.05     |          | 5.0                            |                                | 5.0                            |                                |                                      |
| WATER FLOOD AREA            | 636.0                          | 0.18     | 0.19     | 114.0                          | 121.0                          | 235.0                          |                                |                                      |
| GETHING A                   | 140.0                          | 0.05     |          | 7.0                            |                                | 7.0                            | 1.3                            | 5.7                                  |
| CADDOIN A                   | 113.0                          | 0.10     |          | 11.3                           |                                | 11.3                           | 4.1                            | 7.2                                  |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 1 804 | 8.44                        | 0.084    | 0.32          | 0.92      | 16                             | 830               | 64   | 17 357              | 1 771.8                    | 1983         | 84 11                          |
| 640   | 9.15                        | 0.084    | 0.37          | 0.90      | 30                             | 851               | 54   | 17 297              | 1 794.5                    | 1980         | 85 08                          |
| 64    | 5.76                        | 0.091    | 0.40          | 0.90      | 15                             | 854               | 65   | 3 944               | 1 825.5                    | 1984         | 84 12                          |
| 64    | 12.60                       | 0.095    | 0.32          | 0.90      | 28                             | 850               | 56   | 16 913              | 1 796.5                    | 1984         | 85 02                          |
| 128   | 1.76                        | 0.110    | 0.35          | 0.83      | 58                             | 841               | 60   | 18 213              | 1 822.3                    | 1980         | 85 02 - SUSP 85 08             |
| 64    | 3.80                        | 0.180    | 0.30          | 0.90      | 26                             | 841               | 65   | 17 560              | 1 803.1                    | 1983         | 84 04                          |
| 256   | 3.72                        | 0.170    | 0.29          | 0.83      | 56                             | 847               | 71   | 18 648              | 1 809.1                    | 1984         | 85 02                          |
| 64    | 5.10                        | 0.170    | 0.27          | 0.89      | 30                             | 840               | 64   | 4 100               | 1 866.4                    | 1984         | 85 02                          |
| 64    | 6.40                        | 0.200    | 0.30          | 0.83      | 62                             | 847               | 57   | 8 200               | 1 794.3                    | 1984         | 85 02                          |
| 64    | 1.50                        | 0.150    | 0.42          | 0.87      | 43                             | 854               | 55   | 19 017              | 1 836.7                    | 1984         | 84 11 - ABAND 84 11            |
| 64    | 1.20                        | 0.130    | 0.25          | 0.87      | 42                             | 835               | 56   | 5 150               | 1 826.6                    | 1984         | 85 04                          |
| 129   | 3.57                        | 0.183    | 0.60          | 0.85      | 57                             | 820               | 38   | 7 170               | 1 282.9                    | 1963         | 75 12 - GPP                    |
| 128   | 5.75                        | 0.140    | 0.37          | 0.87      | 51                             | 820               | 46   | 7 240               | 1 365.3                    | 1965         | 85 04 - GPP                    |
| 64    | 6.40                        | 0.200    | 0.32          | 0.87      | 68                             | 820               | 33   | 8 200               | 1 299.3                    | 1979         | 81 12 - SUSP 84 04             |
| 64    | 8.00                        | 0.138    | 0.45          | 0.87      | 58                             | 836               | 29   | 7 500               | 1 312.3                    | 1979         | 85 12                          |
| 170   | 1.83                        | 0.090    | 0.20          | 0.76      | 106                            | 811               | 63   | 17 790              | 1 671.8                    | 1962         | 81 12 - GPP                    |
| 64    | 1.50                        | 0.150    | 0.15          | 0.69      | 140                            | 835               | 62   | 18 980              | 1 847.8                    | 1984         | 85 08                          |
| 5 734 |                             |          |               |           | 55                             | 834               | 62   | 9 960               | 1 784.9                    | 1953         | 84 12 - GPP                    |
| 128   | 3.18                        | 0.104    | 0.32          | 0.83      |                                |                   |      |                     |                            |              |                                |
| 5 606 | 1.86                        | 0.104    | 0.32          | 0.83      |                                |                   |      |                     |                            |              |                                |
| 2 334 |                             |          |               |           | 92                             | 839               | 68   | 17 930              | 1 951.0                    | 1962         | 83 12 - GPP                    |
| 64    | 1.30                        | 0.070    | 0.32          | 0.77      |                                |                   |      |                     |                            |              |                                |
| 2 270 | 1.62                        | 0.073    | 0.32          | 0.77      |                                |                   |      |                     |                            |              |                                |
| 255   | 1.16                        | 0.140    | 0.29          | 0.78      | 92                             | 839               | 66   | 17 440              | 1 911.1                    | 1956         | 74 12 - GPP                    |
| 128   | 0.93                        | 0.110    | 0.30          | 0.75      | 110                            | 849               | 66   | 10 940              | 1 973.9                    | 1974         | 80 12 - GPP                    |
| 65    | 1.22                        | 0.140    | 0.29          | 0.78      | 92                             | 849               | 62   | 12 510              | 1 908.0                    | 1976         | 83 12 - SUSP 81 03             |
| 64    | 2.50                        | 0.030    | 0.45          | 0.75      | 100                            |                   | 83   | 12 500              | 1 917.6                    | 1980         | 82 07 - SUSP 85 05             |
| 256   | 1.30                        | 0.090    | 0.40          | 0.78      | 94                             | 832               | 50   | 10 250              | 1 832.4                    | 1984         | 85 06                          |
| 996   |                             |          |               |           | 71                             | 892               | 69   | 15 860              | 2 145.0                    | 1957         | 84 12 - GPP                    |
| 288   | 6.02                        | 0.120    | 0.23          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 708   | 9.40                        | 0.142    | 0.22          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 41    | 0.91                        | 0.150    | 0.30          | 0.72      | 71                             | 892               | 68   | 15 580              | 2 144.0                    | 1966         | 73 02 - SUSP 68 08             |
| 65    | 2.13                        | 0.100    | 0.30          | 0.79      | 91                             | 892               | 53   | 15 240              | 2 033.6                    | 1966         | 68 02 - SUSP 67 06             |
| 64    | 1.83                        | 0.140    | 0.20          | 0.78      | 99                             | 904               | 52   |                     | 1 887.0                    | 1974         | 75 12 - ABAND 76 06            |
| 128   | 13.84                       | 0.136    | 0.15          | 0.83      | 66                             | 887               | 60   | 14 370              | 2 135.6                    | 1976         | 85 07                          |
| 128   | 5.20                        | 0.130    | 0.27          | 0.78      | 98                             | 829               | 56   | 15 440              | 1 894.3                    | 1971         | 81 12 - GPP                    |
| 64    | 4.00                        | 0.090    | 0.35          | 0.78      | 103                            | 904               | 67   | 15 462              | 2 208.5                    | 1979         | 80 07 - ABAND 83 05            |
| 64    | 9.50                        | 0.110    | 0.28          | 0.78      |                                | 889               | 52   | 16 982              | 2 192.3                    | 1979         | 79 08                          |
| 64    | 2.10                        | 0.130    | 0.33          | 0.80      | 87                             | 890               | 79   | 17 500              | 2 126.4                    | 1981         | 84 01 - SUSP 84 01             |
| 192   | 7.70                        | 0.140    | 0.22          | 0.80      | 86                             | 892               | 71   | 16 220              | 2 137.0                    | 1972         | 84 12 - GPP                    |
| 1 861 |                             |          |               |           | 86                             | 887               | 71   | 16 000              | 2 149.1                    | 1958         | 80 04                          |
| 32    | 1.19                        | 0.140    | 0.22          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 1 829 | 6.40                        | 0.167    | 0.22          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 404   | 4.97                        | 0.146    | 0.25          | 0.80      | 90                             | 887               | 66   | 15 960              | 2 165.3                    | 1961         | 68 05 - GPP                    |
| 64    | 7.01                        | 0.210    | 0.20          | 0.80      | 76                             | 892               | 70   | 13 750              | 2 155.2                    | 1973         | 79 12                          |
| 65    | 7.62                        | 0.150    | 0.25          | 0.80      | 80                             | 887               | 71   | 12 960              | 2 165.0                    | 1974         | 74 12                          |
| 128   | 4.41                        | 0.220    | 0.31          | 0.80      | 83                             | 896               | 70   | 11 618              | 2 154.2                    | 1982         | 85 10                          |
| 101   | 4.79                        | 0.062    | 0.28          | 0.81      | 86                             | 898               | 71   | 15 860              | 2 148.2                    | 1958         | 64 04 - SUSP 66 10             |
| 32    | 6.83                        | 0.100    | 0.22          | 0.81      | 73                             | 898               | 71   | 16 130              | 2 178.1                    | 1962         | 63 10 - SUSP 64 07             |
| 65    | 19.42                       | 0.061    | 0.28          | 0.81      | 73                             | 898               | 79   | 14 200              | 2 163.2                    | 1965         | 67 05 - ABAND 66 11            |
| 65    | 7.62                        | 0.100    | 0.25          | 0.81      | 71                             | 898               | 73   | 15 170              | 2 154.6                    | 1974         | 78 12 - GPP                    |
| 64    | 4.80                        | 0.068    | 0.20          | 0.81      | 74                             | 881               | 62   | 15 420              | 2 027.5                    | 1976         | 82 12 - ABAND 83 01            |
| 64    | 2.50                        | 0.080    | 0.35          | 0.81      | 74                             | 881               | 66   | 15 981              | 2 275.8                    | 1979         | 80 07 - SUSP 80 02             |
| 64    | 8.00                        | 0.100    | 0.25          | 0.81      | 116                            | 887               | 54   | 21 112              | 2 257.5                    | 1979         | 83 12 - GPP                    |
| 64    | 5.00                        | 0.120    | 0.30          | 0.70      | 150                            | 753               | 57   | 15 032              | 2 075.0                    | 1984         | 85 07                          |
| 64    | 9.00                        | 0.050    | 0.40          | 0.70      | 177                            | 817               | 51   | 18 540              | 2 478.5                    | 1979         | 83 12 - SUSP 81 11             |
| 243   | 2.13                        | 0.150    | 0.36          | 0.89      | 36                             | 834               | 86   | 25 860              | 2 472.5                    | 1954         | 71 08 - GPP                    |
| 64    | 6.00                        | 0.140    | 0.40          | 0.89      | 36                             | 838               | 86   | 25 714              | 2 524.6                    | 1984         | 84 11                          |
| 582   |                             |          |               |           | 71                             | 834               | 56   | 11 620              | 1 376.5                    | 1964         | 84 12 - GPP                    |
| 192   | 1.00                        | 0.110    | 0.44          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 390   | 2.01                        | 0.138    | 0.30          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 64    | 2.50                        | 0.130    | 0.25          | 0.90      | 29                             | 927               | 59   | 8 300               | 1 691.3                    | 1979         | 79 11                          |
| 64    | 1.84                        | 0.160    | 0.32          | 0.88      |                                | 922               | 71   | 15 850              | 1 745.5                    | 1978         | 79 02 - GPP                    |



TABLE 2-4

| FIELD<br>POOL                  | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>GLADYS 020-27W4</b>         |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A              | 92.2                           | 0.10     |          | 9.2                            |                                | 9.2                            | 1.1                            | 8.1                                  |
| LOWER MANNVILLE A              | 2 710.0                        | 0.03     |          | 81.3                           |                                | 81.3                           | 39.8                           | 41.5                                 |
| LOWER MANNVILLE B&C            | 77.6                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| DETITAL A                      | 138.0                          | 0.05     |          | 6.9                            |                                | 6.9                            | 2.3                            | 4.6                                  |
| RUNDLE C                       | 1 700.0                        | 0.10     |          | 170.0                          |                                | 170.0                          | 59.0                           | 111.0                                |
| RUNDLE E                       | 419.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| <b>GLEICHEN 022-21W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A              | 47.2                           | <0.03    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| UPPER MANNVILLE B              | 44.1                           | 0.10     |          | 4.4                            |                                | 4.4                            | 1.7                            | 2.7                                  |
| <b>GLEN PARK 049-27W4</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                  | 194.0                          | <0.18    |          | 34.5                           |                                | 34.5                           | 34.5                           |                                      |
| GLAUCONITIC B                  | 333.0                          | 0.15     |          | 50.0                           |                                | 50.0                           | 35.7                           | 14.3                                 |
| D-2 A                          | 304.0                          | 0.07     |          | 21.3                           |                                | 21.3                           | 21.3                           |                                      |
| D-3 A                          | 4 660.0                        | 0.72     |          | 3 350.0                        |                                | 3 350.0                        | 3 059.0                        | 291.0                                |
| D-3 B                          | 140.0                          | 0.40     |          | 56.0                           |                                | 56.0                           | 7.1                            | 48.9                                 |
| <b>GOLD CREEK 068-06W6</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| CHARLIE LAKE A                 | 99.8                           | 0.15     |          | 15.0                           |                                | 15.0                           | 1.9                            | 13.1                                 |
| <b>GOLDEN 087-14W5</b>         |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A                  | 8 230.0                        | 0.45     |          | 3 700.0                        |                                | 3 700.0                        | 1 796.3                        | 1 903.7                              |
| <b>GOLDEN SPIKE 051-27W4</b>   |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A              | 47.9                           | 0.10     |          | 4.8                            |                                | 4.8                            | 0.3                            | 4.5                                  |
| UPPER MANNVILLE C              | 228.0                          | 0.10     |          | 22.8                           |                                | 22.8                           | 2.6                            | 20.2                                 |
| D-2 A WATER FLOOD              | 2 180.0                        | 0.11     | 0.07     | 240.0                          | 152.0                          | 392.0                          | 346.5                          | 45.5                                 |
| D-2 B                          | 356.0                          | 0.15     |          | 53.4                           |                                | 53.4                           | 49.1                           | 4.3                                  |
| D-3 A TOTAL                    | 49 600.0                       |          |          | 29 900.0                       | 3 650.0                        | 33 500.0                       | 27 697.9                       | 5 802.1                              |
| SOLVENT FLOOD AREA             | 0.0                            |          |          | 0.0                            | 1 590.0                        | 1 590.0                        |                                |                                      |
| GAS FLOOD AREA                 | 49 600.0                       | <0.61    | 0.05     | 29 900.0                       | 2 070.0                        | 31 900.0                       |                                |                                      |
| D-3 B                          | 750.0                          | 0.40     |          | 300.0                          |                                | 300.0                          | 247.5                          | 52.5                                 |
| D-3 C                          | 425.0                          | 0.45     |          | 191.0                          |                                | 191.0                          | 167.4                          | 23.6                                 |
| <b>GOODWIN 059-13W5</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ A                 | 189.0                          | 0.10     |          | 18.9                           |                                | 18.9                           | 5.5                            | 13.4                                 |
| <b>GOOSE RIVER 067-18W5</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| D-2 A                          | 297.0                          | <0.01    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| BEAVERHILL LAKE A              | 22 200.0                       |          |          | 3 520.0                        | 5 060.0                        | 8 580.0                        | 5 548.1                        | 3 031.9                              |
| TOTAL                          |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                   | 237.0                          | <0.01    |          | 1.6                            |                                | 1.6                            |                                |                                      |
| WATER FLOOD AREA               | 22 000.0                       | 0.16     | 0.23     | 3 520.0                        | 5 060.0                        | 8 580.0                        |                                |                                      |
| BEAVERHILL LAKE B              | 167.0                          | <0.09    |          | 13.8                           |                                | 13.8                           | 13.8                           |                                      |
| <b>GORDONDALE 079-10W6</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| HALFWAY A                      | 149.0                          | <0.02    |          | 2.2                            |                                | 2.2                            | 2.2                            |                                      |
| HALFWAY B                      | 918.0                          | 0.10     |          | 91.8                           |                                | 91.8                           | 15.8                           | 76.0                                 |
| HALFWAY C                      | 167.0                          | 0.10     |          | 16.7                           |                                | 16.7                           | 3.5                            | 13.2                                 |
| HALFWAY D                      | 137.0                          | 0.10     |          | 13.7                           |                                | 13.7                           | 6.5                            | 7.2                                  |
| <b>GRANDE PRAIRIE 073-06W6</b> |                                |          |          |                                |                                |                                |                                |                                      |
| HALFWAY A                      | 4 000.0                        | 0.12     |          | 480.0                          |                                | 480.0                          | 94.2                           | 385.8                                |
| HALFWAY F                      | 11.4                           | 0.10     |          | 1.1                            |                                | 1.1                            | 0.3                            | 0.8                                  |
| HALFWAY H                      | 130.0                          | 0.10     |          | 13.0                           |                                | 13.0                           | 1.5                            | 11.5                                 |
| <b>GUNN 056-03W5</b>           |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A              | 158.0                          | 0.10     |          | 15.8                           |                                | 15.8                           | 1.3                            | 14.5                                 |
| <b>HACKETT 036-18W4</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A              | 2 260.0                        | 0.05     |          | 113.0                          |                                | 113.0                          | 44.7                           | 68.3                                 |
| UPPER MANNVILLE D              | 238.0                          | 0.10     |          | 23.8                           |                                | 23.8                           | 0.1                            | 23.7                                 |
| <b>HALKIRK 038-16W4</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B              | 82.7                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| UPPER MANNVILLE D              | 786.0                          | 0.10     |          | 78.6                           |                                | 78.6                           | 3.4                            | 75.2                                 |
| UPPER MANNVILLE E              | 202.0                          | 0.10     |          | 20.2                           |                                | 20.2                           |                                | 20.2                                 |
| UPPER MANNVILLE F              | 1 170.0                        | 0.10     |          | 117.0                          |                                | 117.0                          |                                | 117.0                                |
| UPPER MANNVILLE G              | 140.0                          | 0.05     |          | 7.0                            |                                | 7.0                            | 0.2                            | 6.8                                  |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                                  |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|-------------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS      |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                     |
| 64    | 2.00                        | 0.120    | 0.25          | 0.80      | 80                             | 852               | 48   | 17 226              | 2 021.5                    | 1979         | 82 08                               |
| 192   | 22.39                       | 0.120    | 0.30          | 0.75      | 112                            | 849               | 54   | 16 805              | 2 056.9                    | 1978         | 83 12 - GPP                         |
| 64    | 2.10                        | 0.110    | 0.30          | 0.75      | 112                            | 830               | 54   | 16 468              | 2 054.1                    | 1978         | 82 12 - SUSP 82 07                  |
| 64    | 4.00                        | 0.120    | 0.40          | 0.75      | 112                            | 840               | 54   | 15 065              | 2 062.4                    | 1978         | 84 12                               |
| 320   | 13.00                       | 0.070    | 0.27          | 0.73      | 102                            | 849               | 56   | 15 190              | 2 070.1                    | 1978         | 80 05                               |
| 64    | 12.80                       | 0.120    | 0.40          | 0.71      | 140                            | 820               | 64   | 16 165              | 1 988.5                    | 1978         | 82 12 - SUSP 78 10                  |
| 64    | 1.30                        | 0.140    | 0.50          | 0.81      | 82                             | 841               | 43   | 10 869              | 1 462.0                    | 1980         | 84 12 - ABAND 83 11                 |
| 64    | 1.70                        | 0.100    | 0.50          | 0.81      | 72                             | 838               | 43   | 10 771              | 1 396.4                    | 1979         | 83 01                               |
| 77    | 2.74                        | 0.149    | 0.26          | 0.83      | 60                             | 881               | 59   | 13 240              | 1 408.5                    | 1953         | 61 09 - ABAND 71 05                 |
| 82    | 3.64                        | 0.170    | 0.20          | 0.82      | 44                             | 881               | 60   | 7 170               | 1 428.9                    | 1965         | 84 12 - GPP                         |
| 239   | 4.63                        | 0.047    | 0.20          | 0.73      | 113                            | 820               | 67   | 13 240              | 1 691.3                    | 1952         | 64 04 - SUSP 69 12                  |
| 173   | 39.32                       | 0.097    | 0.07          | 0.76      | 106                            | 834               | 74   | 15 200              | 1 921.8                    | 1951         | 73 05                               |
| 64    | 4.00                        | 0.090    | 0.20          | 0.76      | 99                             | 836               | 74   | 14 149              | 1 912.0                    | 1983         | 84 05                               |
| 64    | 2.76                        | 0.109    | 0.29          | 0.73      | 114                            | 822               | 85   | 24 362              | 2 452.9                    | 1983         | 84 03                               |
| 2 146 | 9.62                        | 0.060    | 0.27          | 0.91      | 32                             | 829               | 38   | 16 660              | 1 599.3                    | 1971         | 84 12                               |
| 16    | 3.60                        | 0.160    | 0.35          | 0.80      | 60                             | 905               | 50   | 11 265              | 1 269.5                    | 1976         | 84 03 - SUSP 84 09                  |
| 64    | 6.50                        | 0.120    | 0.45          | 0.83      | 58                             | 881               | 45   | 8 500               | 1 300.8                    | 1983         | 83 11                               |
| 509   | 9.85                        | 0.057    | 0.15          | 0.75      | 87                             | 839               | 61   | 12 270              | 1 542.9                    | 1952         | 82 12 - GPP                         |
| 173   | 3.93                        | 0.078    | 0.14          | 0.78      | 87                             | 839               | 61   | 12 410              | 1 556.9                    | 1951         | 73 12 - GPP                         |
| 590   |                             |          |               |           | 73                             | 839               | 67   | 14 450              | 1 728.8                    | 1949         | 77 12                               |
|       |                             |          |               |           |                                |                   |      |                     |                            |              | - SOLVENT FLOOD<br>TERMINATED 76 02 |
| 590   | 135.64                      | 0.087    | 0.11          | 0.80      |                                |                   |      |                     |                            |              |                                     |
| 254   | 6.09                        | 0.068    | 0.12          | 0.81      | 73                             | 839               | 77   | 14 340              | 1 810.2                    | 1950         | 83 12                               |
| 158   | 5.82                        | 0.068    | 0.15          | 0.80      | 73                             | 839               | 67   | 14 480              | 1 827.0                    | 1951         | 85 12 - GPP                         |
| 64    | 5.26                        | 0.120    | 0.40          | 0.78      | 90                             | 860               | 61   | 13 800              | 1 650.0                    | 1973         | 85 11                               |
| 65    | 9.14                        | 0.080    | 0.15          | 0.74      | 113                            | 825               | 114  | 28 460              | 2 372.6                    | 1965         | 71 05 - ABAND 69 08                 |
| 3 527 |                             |          |               |           | 99                             | 820               | 110  | 29 300              | 2 810.3                    | 1963         | 85 04                               |
| 65    | 7.35                        | 0.082    | 0.19          | 0.75      |                                |                   |      |                     |                            |              |                                     |
| 3 463 | 12.93                       | 0.082    | 0.19          | 0.75      |                                |                   |      |                     |                            |              |                                     |
| 130   | 3.66                        | 0.060    | 0.24          | 0.77      | 99                             | 820               | 104  | 36 200              | 2 857.2                    | 1965         | 67 02 - SUSP 76 03                  |
| 65    | 4.88                        | 0.090    | 0.27          | 0.72      | 129                            | 815               | 67   | 16 880              | 1 747.1                    | 1976         | 83 12 - SUSP 80 12                  |
| 192   | 8.78                        | 0.105    | 0.36          | 0.81      | 76                             | 830               | 66   | 17 046              | 1 823.9                    | 1980         | 85 12                               |
| 64    | 6.62                        | 0.081    | 0.35          | 0.75      | 139                            | 830               | 61   | 16 503              | 1 859.9                    | 1980         | 81 05                               |
| 128   | 2.95                        | 0.080    | 0.37          | 0.72      | 112                            | 814               | 70   | 15 100              | 1 628.1                    | 1984         | 84 11                               |
| 900   | 7.00                        | 0.106    | 0.16          | 0.71      | 129                            | 798               | 73   | 16 788              | 1 905.6                    | 1982         | 84 02                               |
| 64    | 1.00                        | 0.050    | 0.50          | 0.71      | 129                            | 797               | 73   | 15 099              | 1 901.9                    | 1983         | 84 01                               |
| 64    | 3.81                        | 0.107    | 0.30          | 0.71      | 129                            | 825               | 73   | 16 010              | 1 921.4                    | 1984         | 85 02                               |
| 64    | 3.10                        | 0.190    | 0.40          | 0.70      | 112                            | 827               | 60   | 10 344              | 1 348.2                    | 1978         | 84 01                               |
| 598   | 4.10                        | 0.180    | 0.39          | 0.84      | 44                             | 871               | 39   | 8 170               | 1 177.2                    | 1974         | 84 12 - GPP                         |
| 64    | 3.00                        | 0.220    | 0.33          | 0.84      | 54                             | 871               | 40   | 8 170               | 1 236.9                    | 1984         | 85 07                               |
| 64    | 1.23                        | 0.200    | 0.30          | 0.75      | 51                             | 874               | 35   |                     | 1 183.5                    | 1977         | 82 12 - SUSP 81 02                  |
| 64    | 7.20                        | 0.260    | 0.18          | 0.80      | 64                             | 856               | 45   | 8 992               | 1 196.3                    | 1984         | 85 08                               |
| 64    | 3.80                        | 0.167    | 0.38          | 0.80      | 55                             | 873               | 38   | 8 120               | 1 187.7                    | 1984         | 85 10                               |
| 64    | 14.90                       | 0.220    | 0.30          | 0.80      | 84                             | 867               | 48   | 9 400               | 1 238.4                    | 1984         | 85 12                               |
| 64    | 2.90                        | 0.190    | 0.47          | 0.75      | 110                            | 870               | 30   | 13 000              | 1 185.5                    | 1984         | 85 10                               |

TABLE 2-4

| FIELD<br>POOL                           | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>HALKIRK 03B-16W4<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE F                       | 1 160.0                        | 0.10     |          | 116.0                          |                                | 116.0                          | 41.2                           | 74.8                                 |
| LOWER MANNVILLE H                       | 145.0                          | 0.10     |          | 14.5                           |                                | 14.5                           | 2.6                            | 11.9                                 |
| LOWER MANNVILLE I                       | 1 380.0                        | 0.10     |          | 138.0                          |                                | 138.0                          | 15.0                           | 123.0                                |
| CAMROSE A                               | 203.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| CAMROSE B                               | 304.0                          | 0.25     |          | 76.0                           |                                | 76.0                           | 5.0                            | 71.0                                 |
| CAMROSE C                               | 100.0                          | 0.25     |          | 25.0                           |                                | 25.0                           | 5.7                            | 19.3                                 |
| <b>HALKIRK EAST 040-13W4</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                                | 273.0                          | 0.10     |          | 27.3                           |                                | 27.3                           | 5.0                            | 22.3                                 |
| VIKING B                                | 154.0                          | 0.10     |          | 15.4                           |                                | 15.4                           | 3.7                            | 11.7                                 |
| VIKING C                                | 52.9                           | 0.10     |          | 5.3                            |                                | 5.3                            | 0.2                            | 5.1                                  |
| VIKING D                                | 877.0                          | 0.02     |          | 17.5                           |                                | 17.5                           | 5.8                            | 11.7                                 |
| VIKING E                                | 91.2                           | 0.10     |          | 9.1                            |                                | 9.1                            | 1.2                            | 7.9                                  |
| VIKING F                                | 86.4                           | 0.10     |          | 8.6                            |                                | 8.6                            | 0.1                            | 8.5                                  |
| VIKING G                                | 49.1                           | 0.10     |          | 4.9                            |                                | 4.9                            | 0.3                            | 4.6                                  |
| GLAUCONITIC A                           | 743.0                          | 0.10     |          | 74.3                           |                                | 74.3                           | 1.8                            | 72.5                                 |
| GLAUCONITIC B                           | 206.0                          | 0.10     |          | 20.6                           |                                | 20.6                           |                                | 20.6                                 |
| ELLERSLIE A                             | 3 240.0                        | 0.10     |          | 324.0                          |                                | 324.0                          | 30.7                           | 293.3                                |
| ELLERSLIE B                             | 3 490.0                        | 0.10     |          | 349.0                          |                                | 349.0                          | 34.7                           | 314.3                                |
| ELLERSLIE C                             | 279.0                          | 0.10     |          | 27.9                           |                                | 27.9                           | 0.8                            | 27.1                                 |
| <b>HAMELIN CREEK<br/>080-06W6</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| TRIASSIC A                              | 728.0                          | 0.25     |          | 182.0                          |                                | 182.0                          | 35.3                           | 146.7                                |
| <b>HANNA 031-14W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B                       | 105.0                          | 0.10     |          | 10.5                           |                                | 10.5                           | 2.3                            | 8.2                                  |
| LOWER MANNVILLE A                       | 297.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| <b>HARMATTAN EAST<br/>032-03W5</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                               | 159.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| CARDIUM B                               | 152.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| CARDIUM C                               | 25.2                           | 0.10     |          | 2.5                            |                                | 2.5                            | 0.9                            | 1.6                                  |
| CARDIUM D                               | 258.0                          | 0.10     |          | 25.8                           |                                | 25.8                           | 1.7                            | 24.1                                 |
| VIKING B                                | 350.0                          | <0.01    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| VIKING C                                | 243.0                          | 0.10     |          | 24.3                           |                                | 24.3                           | 5.4                            | 18.9                                 |
| VIKING E                                | 5 830.0                        | 0.12     |          | 697.0                          |                                | 697.0                          | 386.3                          | 310.7                                |
| VIKING J                                | 77.5                           | 0.10     |          | 7.8                            |                                | 7.8                            | 0.3                            | 7.5                                  |
| VIKING K                                | 106.0                          | 0.10     |          | 10.6                           |                                | 10.6                           | 0.4                            | 10.2                                 |
| BLAIRMORE                               | 288.0                          | <0.09    |          | 24.8                           |                                | 24.8                           | 24.8                           |                                      |
| NORDEGG A                               | 136.0                          | 0.05     |          | 6.8                            |                                | 6.8                            | 1.2                            | 5.6                                  |
| RUNDLE TOTAL                            | 32 700.0                       |          |          | 10 500.0                       | 2 620.0                        | 13 100.0                       | 10 290.9                       | 2 809.1                              |
| PRIMARY AREA                            | 0.5                            | 0.32     |          | 0.2                            |                                | 0.2                            |                                |                                      |
| WATER FLOOD AREA                        | 32 700.0                       | 0.32     | 0.08     | 10 500.0                       | 2 620.0                        | 13 100.0                       |                                |                                      |
| <b>HARMATTAN-ELKTON<br/>031-04W5</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| RUNDLE B                                | 113.0                          | <0.08    |          | 8.9                            |                                | 8.9                            | 8.9                            |                                      |
| RUNDLE C                                | 29 900.0                       | 0.34     |          | 10 200.0                       |                                | 10 200.0                       | 9 027.9                        | 1 172.1                              |
| <b>HARD 106-08W6</b>                    |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER A                             | 370.0                          | 0.15     |          | 55.5                           |                                | 55.5                           | 2.0                            | 53.5                                 |
| <b>HAYNES 03B-24W4</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| D-2 A & D-3 A                           | 1 670.0                        | 0.20     |          | 334.0                          |                                | 334.0                          | 257.8                          | 76.2                                 |
| <b>HIGHVALE 051-04W5</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM C TOTAL                         | 1 440.0                        |          |          | 144.0                          | 173.0                          | 317.0                          | 72.8                           | 244.2                                |
| PRIMARY AREA                            | 290.0                          | 0.10     |          | 29.0                           |                                | 29.0                           |                                |                                      |
| WATER FLOOD AREA                        | 1 150.0                        | 0.10     | 0.15     | 115.0                          | 173.0                          | 288.0                          |                                |                                      |
| CARDIUM D                               | 95.0                           | 0.10     |          | 9.5                            |                                | 9.5                            | 2.6                            | 6.9                                  |
| CARDIUM G                               | 236.0                          | 0.10     |          | 23.6                           |                                | 23.6                           | 1.5                            | 22.1                                 |
| LOWER MANNVILLE A                       | 5 420.0                        |          |          | 432.0                          | 440.0                          | 872.0                          | 220.9                          | 651.1                                |
| TOTAL                                   |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                            | 2 970.0                        | 0.08     |          | 237.0                          |                                | 237.0                          |                                |                                      |
| WATER FLOOD AREA                        | 2 450.0                        | 0.08     | 0.18     | 195.0                          | 440.0                          | 635.0                          |                                |                                      |
| LOWER MANNVILLE B                       | 120.0                          | 0.10     |          | 12.0                           |                                | 12.0                           | 9.5                            | 2.5                                  |
| LOWER MANNVILLE D                       | 102.0                          | 0.10     |          | 10.2                           |                                | 10.2                           | 4.1                            | 6.1                                  |
| LOWER MANNVILLE I                       | 131.0                          | 0.08     |          | 10.5                           |                                | 10.5                           | 3.3                            | 7.2                                  |
| LOWER MANNVILLE J                       | 102.0                          | 0.10     |          | 10.2                           |                                | 10.2                           | 3.2                            | 7.0                                  |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 448   | 3.39                        | 0.180    | 0.47          | 0.80      | 98                             | 843               | 37   | 8 910               | 1 201.5                    | 1978         | 84 05 - GPP                    |
| 64    | 2.80                        | 0.180    | 0.44          | 0.80      | 78                             | 858               | 59   | 9 100               | 1 239.0                    | 1984         | 85 10                          |
| 64    | 15.00                       | 0.240    | 0.25          | 0.80      | 70                             | 867               | 35   | 9 460               | 1 242.6                    | 1984         | 85 10                          |
| 64    | 7.00                        | 0.070    | 0.19          | 0.80      | 36                             | 868               | 53   | 10 108              | 1 395.5                    | 1984         | 85 10 - SUSP 85 01             |
| 64    | 9.10                        | 0.075    | 0.13          | 0.80      | 36                             | 878               | 53   | 10 108              | 1 431.1                    | 1984         | 85 10                          |
| 22    | 10.36                       | 0.061    | 0.20          | 0.90      | 84                             | 882               | 53   | 10 049              | 1 376.9                    | 1983         | 85 10                          |
| 192   | 1.55                        | 0.170    | 0.42          | 0.93      | 26                             | 850               | 33   | 5 909               | 829.6                      | 1982         | 82 11                          |
| 128   | 1.54                        | 0.150    | 0.44          | 0.93      | 27                             | 850               | 33   | 6 532               | 835.8                      | 1982         | 85 02                          |
| 64    | 0.90                        | 0.170    | 0.40          | 0.90      | 37                             | 854               | 33   | 5 757               | 828.5                      | 1982         | 82 11                          |
| 192   | 3.70                        | 0.214    | 0.38          | 0.93      |                                |                   |      | 5 978               | 829.0                      | 1973         | 85 12 - GPP                    |
| 64    | 2.00                        | 0.150    | 0.50          | 0.95      | 24                             | 858               | 33   | 5 497               | 834.5                      | 1982         | 83 05                          |
| 64    | 2.00                        | 0.150    | 0.50          | 0.90      | 37                             | 858               | 33   | 5 880               | 834.2                      | 1982         | 83 05 - SUSP 83 07             |
| 64    | 1.00                        | 0.150    | 0.45          | 0.93      | 22                             | 838               | 38   | 5 506               | 829.8                      | 1984         | 85 02                          |
| 128   | 5.76                        | 0.160    | 0.30          | 0.90      | 37                             | 880               | 35   | 7 450               | 1 030.9                    | 1983         | 83 12                          |
| 128   | 2.00                        | 0.190    | 0.47          | 0.80      | 52                             | 855               | 39   | 7 054               | 973.3                      | 1984         | 85 11                          |
| 256   | 7.89                        | 0.230    | 0.18          | 0.85      | 42                             | 896               | 32   | 6 958               | 989.8                      | 1982         | 85 04                          |
| 256   | 7.80                        | 0.250    | 0.18          | 0.85      | 43                             | 870               | 35   | 6 820               | 997.2                      | 1983         | 85 02                          |
| 64    | 2.50                        | 0.260    | 0.21          | 0.85      | 66                             | 885               | 31   | 7 215               | 1 046.4                    | 1984         | 84 12                          |
| 192   | 3.02                        | 0.190    | 0.25          | 0.88      | 50                             | 835               | 50   | 11 322              | 1 186.0                    | 1980         | 84 02                          |
| 64    | 2.00                        | 0.180    | 0.50          | 0.91      | 37                             | 853               | 31   | 8 008               | 1 136.5                    | 1981         | 82 06                          |
| 65    | 3.05                        | 0.250    | 0.30          | 0.86      | 52                             | 865               | 31   | 9 310               | 1 174.4                    | 1970         | 72 07 - ABAND 72 05            |
| 64    | 3.90                        | 0.100    | 0.15          | 0.75      | 35                             | 806               | 64   | 15 292              | 1 938.2                    | 1979         | 83 12 - ABAND 84 05            |
| 64    | 4.80                        | 0.141    | 0.56          | 0.80      | 83                             | 815               | 59   | 16 170              | 2 023.5                    | 1979         | 83 12 - SUSP 81 11             |
| 64    | 0.90                        | 0.080    | 0.30          | 0.78      | 80                             | 851               | 61   | 16 990              | 2 051.9                    | 1983         | 83 07                          |
| 64    | 4.00                        | 0.150    | 0.15          | 0.79      | 79                             | 785               | 61   | 16 550              | 1 999.0                    | 1981         | 83 09                          |
| 64    | 8.00                        | 0.135    | 0.35          | 0.78      | 89                             |                   | 60   | 12 600              | 2 216.3                    | 1981         | 81 12 - ABAND 83 11            |
| 64    | 8.30                        | 0.077    | 0.30          | 0.85      | 60                             | 844               | 67   | 17 131              | 2 350.6                    | 1981         | 82 06                          |
| 4 411 | 2.55                        | 0.960    | 0.35          | 0.83      | 58                             | 840               | 56   | 10 225              | 2 189.2                    | 1982         | 85 09                          |
| 64    | 3.88                        | 0.080    | 0.50          | 0.78      | 100                            | 840               | 51   | 9 000               | 2 200.6                    | 1982         | 83 05 - SUSP 84 03             |
| 64    | 4.99                        | 0.078    | 0.39          | 0.70      | 160                            | 790               | 67   | 10 950              | 2 369.8                    | 1982         | 83 11                          |
| 65    | 5.49                        | 0.150    | 0.17          | 0.65      | 177                            | 834               | 77   | 28 960              | 2 451.2                    | 1961         | 61 09 - SUSP 73 07             |
| 64    | 7.70                        | 0.075    | 0.45          | 0.67      | 170                            | 820               | 90   | 24 850              | 2 461.6                    | 1980         | 85 05 - GPP                    |
| 4 568 |                             |          |               |           | 171                            | 834               | 85   | 23 650              | 2 628.9                    | 1957         | 72 07                          |
| 21    | 0.03                        | 0.137    | 0.15          | 0.67      |                                |                   |      |                     |                            |              |                                |
| 4 647 | 9.02                        | 0.137    | 0.15          | 0.67      |                                |                   |      |                     |                            |              |                                |
| 65    | 2.77                        | 0.126    | 0.23          | 0.65      | 158                            | 825               | 93   | 23 650              | 2 714.9                    | 1964         | 74 02 - ABAND 71 12            |
| 4 491 | 9.56                        | 0.128    | 0.20          | 0.68      | 172                            | 844               | 94   | 25 100              | 2 782.2                    | 1955         | 83 12 - GPP                    |
| 64    | 16.90                       | 0.060    | 0.08          | 0.62      | 193                            | 807               | 84   | 17 628              | 2 000.3                    | 1982         | 83 05                          |
| 1 054 | 7.47                        | 0.041    | 0.25          | 0.69      | 148                            | 825               | 61   | 16 310              | 1 859.0                    | 1968         | 76 05                          |
| 1 050 |                             |          |               |           | 22                             | 871               | 39   | 15 391              | 1 141.7                    | 1981         | 85 04                          |
| 128   | 2.09                        | 0.140    | 0.17          | 0.93      |                                |                   |      |                     |                            |              |                                |
| 922   | 1.05                        | 0.150    | 0.15          | 0.93      |                                |                   |      |                     |                            |              |                                |
| 64    | 1.70                        | 0.110    | 0.15          | 0.93      | 22                             | 871               | 39   | 15 392              | 1 148.5                    | 1981         | 83 01                          |
| 64    | 3.30                        | 0.150    | 0.20          | 0.93      | 28                             | 874               | 38   | 12 899              | 1 090.9                    | 1984         | 84 10                          |
| 3 106 |                             |          |               |           | 84                             | 870               | 53   | 17 305              | 1 591.0                    | 1977         | 85 04                          |
| 1 730 | 2.12                        | 0.150    | 0.34          | 0.82      |                                |                   |      |                     |                            |              |                                |
| 1 376 | 2.19                        | 0.150    | 0.34          | 0.82      |                                |                   |      |                     |                            |              |                                |
| 64    | 2.52                        | 0.140    | 0.35          | 0.82      | 90                             | 855               | 54   | 16 962              | 1 583.0                    | 1979         | 79 08                          |
| 64    | 1.85                        | 0.150    | 0.30          | 0.82      | 86                             | 870               | 56   | 16 168              | 1 586.5                    | 1978         | 81 10                          |
| 64    | 1.80                        | 0.180    | 0.23          | 0.82      | 84                             | 865               | 43   | 14 959              | 1 516.9                    | 1980         | 81 08                          |
| 64    | 2.50                        | 0.120    | 0.35          | 0.82      | 68                             | 862               | 50   | 16 484              | 1 625.8                    | 1982         | 83 02                          |



TABLE 2-4

| FIELD<br>POOL                    | 1   | 2 3                 |                      | 4 5 6   |  |   | 7  | 8  |
|----------------------------------|---|---------------------|----------------------|---|--|---|--|--|
|                                  | INITIAL<br>VOLUME<br>IN PLACE<br><br>10 <sup>3</sup> m <sup>3</sup> | RECOVERY            |                      | INITIAL ESTABLISHED RESERVES                  |  |   | CUMULATIVE<br>PRODUCTION<br><br>10 <sup>3</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br><br>10 <sup>3</sup> m <sup>3</sup> |
|                                  |   | PRIMARY<br><br>frac | ENHANCED<br><br>frac | PRIMARY<br><br>10 <sup>3</sup> m <sup>3</sup> | ENHANCED<br><br>10 <sup>3</sup> m <sup>3</sup> | TOTAL<br><br>10 <sup>3</sup> m <sup>3</sup> |  |  |
| HIGHVALE 051-04W5<br>(CONTINUED) |   |                     |                      |   |  |   |  |  |
| LOWER MANNVILLE P                | 244.0   | <0.01               |                      | 0.1   |  | 0.1   |  | 0.1  |
| LOWER MANNVILLE S                | 135.0   | 0.10                |                      | 13.5  |  | 13.5  | 0.6  | 12.9   |
| BANFF A                          | 2 900.0   | 0.12                |                      | 350.0   |  | 350.0                                       | 109.3  | 240.7  |
| BANFF B                          | 287.0   | 0.05                |                      | 14.4  |  | 14.4  | 4.5  | 9.9  |
| BANFF E                          | 350.0   | <0.01               |                      | 2.7   |  | 2.7   | 2.7  |  |
| BANFF F                          | 375.0   | <0.01               |                      | 1.1   |  | 1.1   | 1.0  | 0.1  |
| BANFF G                          | 553.0   | <0.01               |                      | 0.1   |  | 0.1   | 0.1  |  |
| BANFF H                          | 6 430.0   | 0.10                |                      | 643.0   |  | 643.0                                       | 42.5   | 600.5  |
| BANFF K                          | 80.9  | <0.01               |                      | 0.1   |  | 0.1   | 0.1  |  |
| BANFF M                          | 536.0   | 0.04                |                      | 21.4  |  | 21.4  | 7.3  | 14.1   |
| BANFF P                          | 371.0   | 0.12                |                      | 44.5  |  | 44.5  | 14.2   | 30.3   |
| HILLSDOWN 037-25W4               |   |                     |                      |   |  |   |  |  |
| D-2 A                            | 263.0   | 0.05                |                      | 13.2  |  | 13.2  | 6.2  | 7.0  |
| D-2 B                            | 308.0   | 0.15                |                      | 46.2  |  | 46.2  | 39.3   | 12.9   |
| HOLMBERG 044-18W4                |   |                     |                      |   |  |   |  |  |
| MANNVILLE H                      | 103.0   | 0.10                |                      | 10.3  |  | 10.3  | 0.2  | 10.1   |
| HOMEGLEN-RIMBEY<br>043-01W5      |   |                     |                      |   |  |   |  |  |
| ELLERSLIE A                      | 156.0   | <0.01               |                      | 0.1   |  | 0.1   | 0.1  |  |
| D-3                              | 14 900.0  | <0.08               |                      | 1 150.0                                       |  | 1 150.0                                     | 1 124.7  | 25.3   |
| D-3 B                            | 700.0   | 0.50                |                      | 350.0   |  | 350.0                                       | 36.8   | 313.2  |
| HOOGER 015-29W4                  |   |                     |                      |   |  |   |  |  |
| JURASSIC A                       | 95.3  | 0.10                |                      | 9.5   |  | 9.5   | 4.5  | 5.0  |
| HUSSAR 025-20W4                  |   |                     |                      |   |  |   |  |  |
| GLAUCONITIC A                    | 6 980.0   | <0.47               |                      | 3 270.0                                       |  | 3 270.0                                     | 2 850.8  | 419.2  |
| GLAUCONITIC B                    | 1 300.0   | 0.03                |                      | 39.0  |  | 39.0  | 29.5   | 9.5  |
| GLAUCONITIC C                    | 37.3  | <0.06               |                      | 2.1   |  | 2.1   | 2.1  |  |
| GLAUCONITIC E                    | 842.0   | 0.07                |                      | 58.9  |  | 58.9  | 43.7   | 15.2   |
| GLAUCONITIC F                    | 74.8  | <0.06               |                      | 4.4   |  | 4.4   | 4.4  |  |
| GLAUCONITIC G                    | 925.0   | 0.06                |                      | 55.6  |  | 55.6  | 49.8   | 5.8  |
| GLAUCONITIC H                    | 108.0   | <0.08               |                      | 8.1   |  | 8.1   | 8.1  |  |
| GLAUCONITIC J                    | 263.0   | 0.10                |                      | 26.3  |  | 26.3  | 7.5  | 18.8   |
| GLAUCONITIC K                    | 119.0   | <0.04               |                      | 4.6   |  | 4.6   | 4.6  |  |
| GLAUCONITIC U                    | 116.0   | 0.15                |                      | 17.5  |  | 17.5  | 16.3   | 1.2  |
| GLAUCONITIC X                    | 227.0   | 0.10                |                      | 22.7  |  | 22.7  | 9.7  | 13.0   |
| GLAUCONITIC BB                   | 636.0   | 0.10                |                      | 63.6  |  | 63.6  | 44.5   | 19.1   |
| GLAUCONITIC DD                   | 219.0   | 0.03                |                      | 6.6   |  | 6.6   | 5.3  | 1.3  |
| GLAUCONITIC SS                   | 173.0   | 0.01                |                      | 1.7   |  | 1.7   | 0.3  | 1.4  |
| GLAUCONITIC VV                   | 216.0   | 0.10                |                      | 21.6  |  | 21.6  | 6.5  | 15.1   |
| GLAUCONITIC YY                   | 221.0   | 0.10                |                      | 22.1  |  | 22.1  | 2.7  | 19.4   |
| GLAUCONITIC FFF                  | 32.6  | 0.10                |                      | 3.3   |  | 3.3   | 1.9  | 1.4  |
| GLAUCONITIC NNN                  | 1 190.0   | 0.10                |                      | 119.0   |  | 119.0                                       | 4.7  | 114.3  |
| GLAUCONITIC RRR                  | 364.0   | 0.01                |                      | 3.6   |  | 3.6   | 0.7  | 2.9  |
| GLAUCONITIC SSS                  | 1 170.0   | 0.10                |                      | 117.0   |  | 117.0                                       | 70.2   | 46.8   |
| GLAUCONITIC TTT                  | 55.3  | 0.10                |                      | 5.5   |  | 5.5   | 2.5  | 3.0  |
| GLAUCONITIC VVV                  | 71.9  | <0.01               |                      | 0.1   |  | 0.1   | 0.1  |  |
| GLAUCONITIC B2B                  | 71.8  | 0.10                |                      | 7.2   |  | 7.2   | 1.1  | 6.1  |
| OSTRACOD C                       | 79.5  | 0.02                |                      | 1.6   |  | 1.6   | 1.6  |  |
| OSTRACOD H                       | 49.3  | 0.01                |                      | 0.5   |  | 0.5   | 0.5  |  |
| OSTRACOD P                       | 125.0   | <0.10               |                      | 11.7  |  | 11.7  | 11.7   |  |
| OSTRACOD X                       | 158.0   | <0.04               |                      | 4.9   |  | 4.9   | 2.9  | 2.0  |
| OSTRACOD BB                      | 54.6  | <0.01               |                      | 0.3   |  | 0.3   | 0.3  |  |
| OSTRACOD CC                      | 82.9  | 0.10                |                      | 8.3   |  | 8.3   | 4.1  | 4.2  |
| OSTRACOD GG                      | 55.7  | 0.10                |                      | 5.6   |  | 5.6   |  | 5.6  |
| BASAL MANNVILLE A                | 105.0   | <0.04               |                      | 3.6   |  | 3.6   | 3.6  |  |
| BASAL MANNVILLE C                | 222.0   | 0.10                |                      | 22.2  |  | 22.2  | 12.3   | 9.9  |
| BASAL MANNVILLE E                | 215.0   | <0.02               |                      | 2.8   |  | 2.8   | 2.8  |  |
| BASAL MANNVILLE G                | 226.0   | <0.01               |                      | 0.4   |  | 0.4   | 0.4  |  |
| BASAL MANNVILLE H                | 284.0   | <0.01               |                      | 0.2   |  | 0.2   | 0.2  |  |
| BASAL MANNVILLE L                | 35.4  | 0.10                |                      | 3.5   |  | 3.5   | 2.7  | 0.8  |
| BASAL MANNVILLE M                | 300.0   | 0.10                |                      | 30.0  |  | 30.0  | 26.8   | 3.2  |
| BASAL MANNVILLE N                | 318.0   | <0.06               |                      | 19.0  |  | 19.0  | 19.0   |  |
| BASAL MANNVILLE O                | 1 910.0   | 0.10                | 0.05                 | 191.0   | 95.5   | 287.0                                       | 178.0  | 109.0  |
| WATER FLOOD                      |   |                     |                      |   |  |   |  |  |
| BASAL MANNVILLE P                | 248.0   | <0.05               |                      | 12.3  |  | 12.3  | 12.3   |  |
| BASAL MANNVILLE Q                | 953.0   | 0.06                |                      | 57.2  |  | 57.2  | 46.5   | 10.7   |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 5.95                        | 0.130    | 0.40          | 0.82      | 82                             | 882               | 56   | 14 416              | 1 597.0                    | 1983         | 84 10 - ABAND 85 05            |
| 64    | 2.40                        | 0.165    | 0.35          | 0.82      | 82                             | 870               | 56   | 16 605              | 1 567.2                    | 1977         | 85 12                          |
| 372   | 7.55                        | 0.180    | 0.30          | 0.82      | 117                            | 870               | 60   | 16 990              | 1 588.3                    | 1977         | 84 04                          |
| 64    | 4.05                        | 0.220    | 0.33          | 0.75      | 117                            | 870               | 60   | 16 840              | 1 580.1                    | 1977         | 80 01                          |
| 64    | 5.00                        | 0.190    | 0.30          | 0.82      | 89                             | 870               | 60   | 16 899              | 1 613.8                    | 1978         | 81 09 - ABAND 81 05            |
| 64    | 8.00                        | 0.122    | 0.25          | 0.80      | 88                             | 870               | 57   | 18 550              | 1 627.5                    | 1981         | 85 12 - SUSP 84 07             |
| 64    | 5.40                        | 0.250    | 0.20          | 0.80      | 88                             | 870               | 57   | 14 500              | 1 610.3                    | 1981         | 82 04 - ABAND 82 01            |
| 1 051 | 6.91                        | 0.200    | 0.44          | 0.79      | 102                            | 869               | 54   | 17 506              | 1 607.1                    | 1983         | 85 11                          |
| 64    | 2.00                        | 0.150    | 0.48          | 0.81      | 88                             | 866               | 56   | 15 107              | 1 494.9                    | 1983         | 83 10 - ABAND 83 09            |
| 64    | 7.42                        | 0.215    | 0.36          | 0.82      | 117                            | 870               | 60   | 16 010              | 1 577.9                    | 1977         | 85 05                          |
| 64    | 4.59                        | 0.220    | 0.30          | 0.82      | 117                            | 870               | 60   | 16 208              | 1 557.5                    | 1977         | 85 05                          |
| 128   | 6.52                        | 0.060    | 0.28          | 0.73      | 141                            | 826               | 64   | 15 396              | 1 972.6                    | 1980         | 84 12 - GPP                    |
| 192   | 6.19                        | 0.050    | 0.30          | 0.74      | 158                            | 828               | 77   | 18 330              | 2 016.0                    | 1973         | 81 12 - GPP                    |
| 64    | 1.50                        | 0.210    | 0.40          | 0.85      | 58                             | 856               | 42   | 7 210               | 1 129.7                    | 1982         | 83 06 - SUSP 83 12             |
| 64    | 2.70                        | 0.150    | 0.25          | 0.80      | 60                             | 898               | 53   | 11 721              | 1 752.0                    | 1980         | 83 12 - SUSP 81 11             |
| 4 563 | 7.66                        | 0.077    | 0.15          | 0.66      | 165                            | 811               | 83   | 19 550              | 2 415.5                    | 1953         | 83 12 - GPP                    |
| 105   | 12.20                       | 0.100    | 0.30          | 0.78      | 159                            | 810               | 83   | 10 936              | 2 390.4                    | 1983         | 85 02                          |
| 64    | 2.01                        | 0.105    | 0.15          | 0.83      | 120                            | 880               | 72   | 27 714              | 2 790.8                    | 1980         | 84 09                          |
| 675   | 7.07                        | 0.210    | 0.14          | 0.81      | 82                             | 844               | 46   | 10 400              | 1 454.2                    | 1957         | 67 02                          |
| 192   | 5.38                        | 0.210    | 0.25          | 0.81      | 81                             | 860               | 46   | 10 070              | 1 424.6                    | 1959         | 79 12 - GPP                    |
| 16    | 1.83                        | 0.200    | 0.21          | 0.80      | 82                             | 860               | 45   | 10 140              | 1 425.9                    | 1958         | 64 04 - SUSP 63 01             |
| 90    | 6.10                        | 0.225    | 0.16          | 0.81      | 78                             | 849               | 41   | 10 000              | 1 367.0                    | 1959         | 79 12 - GPP                    |
| 32    | 1.83                        | 0.200    | 0.21          | 0.80      | 83                             | 860               | 40   | 10 380              | 1 341.7                    | 1959         | 64 04 - ABAND 68 07            |
| 209   | 2.96                        | 0.221    | 0.23          | 0.88      | 80                             | 860               | 41   | 9 890               | 1 369.2                    | 1961         | 83 12 - GPP                    |
| 21    | 3.70                        | 0.210    | 0.18          | 0.80      | 80                             | 860               | 44   | 10 000              | 1 407.3                    | 1964         | 79 01 - ABAND 78 11            |
| 192   | 1.86                        | 0.140    | 0.36          | 0.82      | 80                             | 838               | 44   | 10 418              | 1 428.6                    | 1977         | 82 05                          |
| 65    | 1.43                        | 0.200    | 0.20          | 0.80      | 80                             | 860               | 43   | 9 960               | 1 423.4                    | 1959         | 83 12 - SUSP 76 12             |
| 122   | 0.91                        | 0.150    | 0.14          | 0.81      | 80                             | 860               | 36   | 10 070              | 1 399.9                    | 1965         | 75 12 - GPP                    |
| 65    | 2.74                        | 0.210    | 0.25          | 0.81      | 62                             | 839               | 46   | 10 030              | 1 433.5                    | 1974         | 77 04 - GPP                    |
| 177   | 3.05                        | 0.210    | 0.30          | 0.80      | 82                             | 844               | 44   | 10 330              | 1 416.4                    | 1965         | 69 08                          |
| 64    | 3.07                        | 0.170    | 0.18          | 0.80      | 80                             | 860               | 43   | 9 790               | 1 396.3                    | 1969         | 82 12 - GPP                    |
| 64    | 3.00                        | 0.150    | 0.25          | 0.80      | 66                             | 857               | 40   | 10 240              | 1 408.0                    | 1979         | 81 12 - SUSP 83 12             |
| 64    | 4.40                        | 0.160    | 0.40          | 0.80      | 88                             | 860               | 49   | 10 741              | 1 461.8                    | 1978         | 80 02 - GPP                    |
| 128   | 2.75                        | 0.140    | 0.44          | 0.80      | 72                             | 849               | 43   | 10 513              | 1 407.3                    | 1979         | 83 03                          |
| 64    | 0.70                        | 0.140    | 0.35          | 0.80      | 85                             | 847               | 43   | 10 441              | 1 403.7                    | 1980         | 82 03                          |
| 128   | 13.10                       | 0.140    | 0.38          | 0.82      | 56                             | 856               | 45   | 9 795               | 1 392.0                    | 1973         | 85 11                          |
| 64    | 5.50                        | 0.210    | 0.40          | 0.82      | 56                             | 857               | 45   | 7 970               | 1 485.3                    | 1960         | 85 12                          |
| 708   | 1.53                        | 0.202    | 0.33          | 0.80      | 86                             | 860               | 44   | 9 980               | 1 428.0                    | 1960         | 83 06                          |
| 64    | 1.00                        | 0.180    | 0.40          | 0.80      | 86                             | 860               | 44   | 9 915               | 1 447.3                    | 1979         | 83 06                          |
| 64    | 1.40                        | 0.150    | 0.34          | 0.81      | 79                             | 847               | 46   | 11 506              | 1 380.2                    | 1980         | 84 01 - SUSP 84 06             |
| 64    | 1.50                        | 0.170    | 0.45          | 0.80      | 82                             | 844               | 43   | 9 800               | 1 386.1                    | 1984         | 84 12                          |
| 64    | 0.76                        | 0.230    | 0.10          | 0.79      | 82                             | 860               | 54   | 10 270              | 1 441.7                    | 1959         | 68 03 - ABAND 61 09            |
| 16    | 2.44                        | 0.200    | 0.21          | 0.79      | 82                             | 860               | 46   | 10 270              | 1 397.2                    | 1959         | 68 03 - ABAND 63 04            |
| 64    | 1.23                        | 0.230    | 0.15          | 0.81      | 62                             | 850               | 49   | 10 170              | 1 398.7                    | 1965         | 81 12 - SUSP 80 03             |
| 65    | 2.13                        | 0.250    | 0.42          | 0.79      | 64                             | 865               | 37   | 10 100              | 1 291.7                    | 1977         | 78 12                          |
| 64    | 1.50                        | 0.160    | 0.55          | 0.79      | 80                             | 857               | 54   | 12 000              | 1 469.0                    | 1980         | 83 01 - ABAND 82 10            |
| 64    | 2.00                        | 0.180    | 0.55          | 0.80      | 56                             | 857               | 41   | 9 358               | 1 399.9                    | 1980         | 85 12                          |
| 64    | 1.00                        | 0.200    | 0.50          | 0.87      | 50                             | 854               | 38   | 6 500               | 1 279.5                    | 1984         | 85 07                          |
| 33    | 2.13                        | 0.220    | 0.14          | 0.80      | 82                             | 849               | 46   | 10 340              | 1 429.8                    | 1957         | 68 03 - ABAND 63 07            |
| 64    | 2.74                        | 0.200    | 0.21          | 0.80      | 82                             | 849               | 47   | 10 340              | 1 467.3                    | 1957         | 71 03 - GPP                    |
| 32    | 6.40                        | 0.168    | 0.23          | 0.80      | 82                             | 849               | 44   | 10 140              | 1 418.5                    | 1959         | 64 04 - SUSP 63 01             |
| 33    | 5.79                        | 0.200    | 0.25          | 0.80      | 82                             | 849               | 43   | 10 340              | 1 399.9                    | 1960         | 64 04 - SUSP 62 03             |
| 32    | 7.32                        | 0.200    | 0.25          | 0.80      | 82                             | 849               | 43   | 10 000              | 1 417.3                    | 1960         | 68 03 - ABAND 61 12            |
| 16    | 1.83                        | 0.200    | 0.25          | 0.80      | 82                             | 849               | 46   | 10 310              | 1 499.3                    | 1961         | 77 07 - SUSP 83 12             |
| 146   | 2.16                        | 0.170    | 0.30          | 0.80      | 82                             | 849               | 44   | 10 170              | 1 417.9                    | 1964         | 82 12 - GPP                    |
| 133   | 2.13                        | 0.200    | 0.30          | 0.80      | 82                             | 849               | 42   | 10 200              | 1 421.3                    | 1964         | 83 12 - SUSP 84 05             |
| 357   | 6.13                        | 0.176    | 0.38          | 0.80      | 81                             | 849               | 44   | 10 100              | 1 414.6                    | 1964         | 84 12 - GPP                    |
| 65    | 4.57                        | 0.150    | 0.30          | 0.80      | 82                             | 849               | 44   | 10 140              | 1 426.2                    | 1964         | 83 12 - SUSP 81 04             |
| 317   | 2.32                        | 0.200    | 0.19          | 0.80      | 82                             | 849               | 46   | 10 650              | 1 457.9                    | 1959         | 82 12 - GPP                    |



TABLE 2-4

| FIELD<br>POOL                  | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| HUSSAR 025-20W4<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL MANNVILLE Y              | 175.0                          | 0.08     |          | 14.0                           |                                | 14.0                           | 13.3                           | 0.7                                  |
| BASAL MANNVILLE KK             | 74.7                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| BASAL MANNVILLE 00             | 488.0                          | 0.10     |          | 48.8                           |                                | 48.8                           | 16.7                           | 32.1                                 |
| BASAL MANNVILLE 00             | 113.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BASAL MANNVILLE SS             | 551.0                          | <0.01    |          | 1.9                            |                                | 1.9                            | 1.9                            |                                      |
| BASAL MANNVILLE UU             | 71.7                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| BASAL MANNVILLE I&Z            | 276.0                          | 0.12     |          | 33.1                           |                                | 33.1                           | 29.1                           | 4.0                                  |
| BASAL QUARTZ B                 | 221.0                          | 0.10     |          | 22.1                           |                                | 22.1                           | 2.6                            | 19.5                                 |
| PEKISK0 B                      | 143.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| HYTHE 073-09W6                 |                                |          |          |                                |                                |                                |                                |                                      |
| HALFWAY A                      | 409.0                          | 0.10     |          | 40.9                           |                                | 40.9                           | 5.2                            | 35.7                                 |
| HALFWAY B                      | 119.0                          | 0.10     |          | 11.9                           |                                | 11.9                           | 4.2                            | 7.7                                  |
| HALFWAY C                      | 330.0                          | 0.10     |          | 33.0                           |                                | 33.0                           | 2.1                            | 30.9                                 |
| INNISFAIL 034-01W5             |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                  | 1 740.0                        | 0.10     |          | 174.0                          |                                | 174.0                          | 6.1                            | 167.9                                |
| BELLY RIVER B                  | 267.0                          | 0.10     |          | 26.7                           |                                | 26.7                           | 0.2                            | 26.5                                 |
| BELLY RIVER C                  | 590.0                          | 0.10     |          | 59.0                           |                                | 59.0                           | 1.2                            | 57.8                                 |
| BLAIRMORE                      | 88.5                           | <0.06    |          | 4.9                            |                                | 4.9                            | 4.9                            |                                      |
| D-3                            | 19 700.0                       | 0.60     |          | 11 800.0                       |                                | 11 800.0                       | 11 075.3                       | 724.7                                |
| IRON SPRINGS 011-20W4          |                                |          |          |                                |                                |                                |                                |                                      |
| BOW ISLAND A                   | 50.4                           | 0.10     |          | 5.0                            |                                | 5.0                            | 4.0                            | 1.0                                  |
| JAYAR 062-03W6                 |                                |          |          |                                |                                |                                |                                |                                      |
| DUNVEGAN A                     | 3 450.0                        | 0.10     |          | 345.0                          |                                | 345.0                          | 92.4                           | 252.6                                |
| DUNVEGAN B                     | 233.0                          | 0.10     |          | 23.3                           |                                | 23.3                           | 9.1                            | 14.2                                 |
| JOARCAM 048-21W4               |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING TOTAL                   | 39 400.0                       |          |          | 14 800.0                       | 2 440.0                        | 17 200.0                       | 15 313.0                       | 1 887.0                              |
| PRIMARY AREA                   | 14 100.0                       | 0.38     |          | 5 360.0                        |                                | 5 360.0                        |                                |                                      |
| WATER FLOOD AREA               | 20 800.0                       | <0.37    | 0.10     | 7 610.0                        | 2 080.0                        | 9 690.0                        |                                |                                      |
| GAS CYCLING AREA               | 4 500.0                        | 0.40     | 0.08     | 1 800.0                        | 360.0                          | 2 160.0                        |                                |                                      |
| VIKING C                       | 115.0                          | 0.05     |          | 5.8                            |                                | 5.8                            | 2.0                            | 3.8                                  |
| WABAMUN A                      | 146.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| JOFFRE C38-26W4                |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING TOTAL                   | 14 800.0                       |          |          | 2 490.0                        | 3 670.0                        | 6 160.0                        | 5 746.9                        | 413.1                                |
| PRIMARY AREA                   | 325.0                          | 0.15     |          | 48.0                           |                                | 48.0                           |                                |                                      |
| WATER FLOOD AREA               | 14 500.0                       | <0.17    | 0.26     | 2 440.0                        | 3 670.0                        | 6 110.0                        |                                |                                      |
| VIKING B                       | 380.0                          | 0.30     |          | 114.0                          |                                | 114.0                          | 97.4                           | 16.6                                 |
| VIKING C                       | 130.0                          | 0.05     |          | 6.5                            |                                | 6.5                            | 1.8                            | 4.7                                  |
| VIKING D                       | 300.0                          | 0.20     |          | 60.0                           |                                | 60.0                           | 23.2                           | 36.8                                 |
| BLAIRMORE A                    | 192.0                          | <0.04    |          | 5.8                            |                                | 5.8                            | 5.8                            |                                      |
| BLAIRMORE B                    | 304.0                          | 0.13     |          | 39.4                           |                                | 39.4                           | 32.9                           | 6.5                                  |
| BLAIRMORE F                    | 76.3                           | 0.10     |          | 7.6                            |                                | 7.6                            | 2.4                            | 5.2                                  |
| D-2 TOTAL                      | 26 900.0                       |          |          | 8 040.0                        | 1 600.0                        | 9 640.0                        | 6 709.8                        | 2 930.2                              |
| PRIMARY AREA                   | 253.0                          | 0.15     |          | 38.0                           |                                | 38.0                           |                                |                                      |
| WATER FLOOD AREA               | 26 600.0                       | 0.30     | 0.06     | 8 000.0                        | 1 600.0                        | 9 600.0                        |                                |                                      |
| JOHNSON 017-14W4               |                                |          |          |                                |                                |                                |                                |                                      |
| DETRITAL A                     | 13.9                           | <0.02    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| JOSEPHINE 083-09W6             |                                |          |          |                                |                                |                                |                                |                                      |
| KISKATINAW B                   | 149.0                          | 0.02     |          | 3.0                            |                                | 3.0                            | 1.1                            | 1.9                                  |
| JUDY CREEK 063-11W5            |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                       | 6 000.0                        | 0.15     |          | 900.0                          |                                | 900.0                          | 640.5                          | 259.5                                |
| VIKING D                       | 307.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BEAVERHILL LAKE A<br>TOTAL     | 130 000.0                      |          |          | 20 800.0                       | 37 200.0                       | 58 000.0                       | 44 048.1                       | 13 951.9                             |
| SOLVENT FLOOD AREA             | 37 100.0                       | 0.16     | 0.35     | 5 940.0                        | 13 100.0                       | 19 000.0                       |                                |                                      |
| WATER FLOOD AREA               | 92 900.0                       | 0.16     | 0.26     | 14 900.0                       | 24 100.0                       | 39 000.0                       |                                |                                      |
| BEAVERHILL LAKE B<br>TOTAL     | 41 400.0                       |          |          | 8 280.0                        | 10 300.0                       | 18 600.0                       | 14 781.2                       | 3 818.8                              |
| PRIMARY AREA                   | 85.0                           | 0.20     |          | 17.0                           |                                | 17.0                           |                                |                                      |
| WATER FLOOD AREA               | 41 300.0                       | 0.20     | 0.25     | 8 260.0                        | 10 300.0                       | 18 600.0                       |                                |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 65     | 2.32                        | 0.200    | 0.26          | 0.79      | 82                             | 849               | 42   | 9 860               | 1 426.8                    | 1959         | 77 12 - GPP                    |
| 65     | 1.83                        | 0.120    | 0.35          | 0.81      | 84                             | 849               | 44   | 10 200              | 1 409.7                    | 1969         | 70 08 - SUSP 70 01             |
| 80     | 9.17                        | 0.160    | 0.48          | 0.80      | 61                             | 877               | 37   | 10 180              | 1 440.9                    | 1977         | 84 12                          |
| 64     | 2.00                        | 0.170    | 0.35          | 0.80      | 82                             | 840               | 43   | 11 256              | 1 520.0                    | 1979         | 83 12 - SUSP 81 04             |
| 64     | 11.50                       | 0.170    | 0.35          | 0.80      | 63                             | 865               | 39   | 8 727               | 1 499.7                    | 1980         | 85 12 - SUSP 84 09             |
| 64     | 2.00                        | 0.140    | 0.50          | 0.80      | 84                             | 857               | 42   | 10 676              | 1 481.9                    | 1980         | 84 12 - SUSP 83 08             |
| 50     | 4.78                        | 0.190    | 0.24          | 0.80      | 84                             | 849               | 38   | 10 340              | 1 441.7                    | 1955         | 83 12 - GPP                    |
| 64     | 4.80                        | 0.180    | 0.50          | 0.80      | 70                             | 870               | 30   | 9 736               | 1 335.8                    | 1981         | 83 02                          |
| 64     | 5.00                        | 0.080    | 0.32          | 0.82      | 75                             | 854               | 47   | 10 169              | 1 441.5                    | 1980         | 81 10 - ABAND 83 02            |
| 128    | 7.14                        | 0.090    | 0.28          | 0.69      | 149                            | 829               | 64   | 22 263              | 2 260.5                    | 1981         | 83 03 - GPP                    |
| 64     | 5.50                        | 0.063    | 0.20          | 0.67      | 155                            | 825               | 62   | 21 888              | 2 203.0                    | 1978         | 82 12 - GPP                    |
| 128    | 5.36                        | 0.093    | 0.25          | 0.69      | 250                            | 827               | 75   | 22 360              | 2 178.8                    | 1981         | 85 05                          |
| 192    | 12.70                       | 0.150    | 0.44          | 0.88      | 36                             | 816               | 36   | 5 393               | 1 208.5                    | 1982         | 84 05                          |
| 64     | 6.15                        | 0.140    | 0.45          | 0.88      | 36                             | 815               | 43   | 4 937               | 1 195.4                    | 1983         | 84 05                          |
| 64     | 11.90                       | 0.160    | 0.45          | 0.88      | 36                             | 876               | 43   | 8 438               | 1 292.8                    | 1983         | 84 05                          |
| 16     | 4.88                        | 0.200    | 0.15          | 0.66      | 154                            | 834               | 78   | 16 800              | 2 053.7                    | 1956         | 64 04 - SUSP 60 06             |
| 3 034  | 23.47                       | 0.060    | 0.13          | 0.53      | 300                            | 806               | 92   | 24 510              | 2 615.8                    | 1957         | 72 02                          |
| 64     | 0.93                        | 0.150    | 0.40          | 0.94      | 25                             | 876               | 21   | 5 558               | 868.3                      | 1977         | 85 08 - GPP                    |
| 758    | 9.10                        | 0.110    | 0.30          | 0.65      | 185                            | 752               | 66   | 23 965              | 2 330.1                    | 1979         | 81 12                          |
| 64     | 7.84                        | 0.102    | 0.30          | 0.65      | 185                            | 752               | 76   | 23 910              | 2 394.0                    | 1981         | 81 12                          |
| 8 173  |                             |          |               |           | 34                             | 834               | 36   | 6 000               | 990.0                      | 1949         | 82 12                          |
| 3 464  | 3.19                        | 0.197    | 0.28          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 3 915  | 4.25                        | 0.193    | 0.28          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 794    | 4.44                        | 0.197    | 0.28          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 128    | 0.95                        | 0.170    | 0.38          | 0.90      | 45                             | 859               | 32   | 5 561               | 1 000.6                    | 1981         | 84 11                          |
| 64     | 6.50                        | 0.075    | 0.45          | 0.85      | 64                             | 836               | 40   | 7 403               | 1 188.8                    | 1980         | 84 12 - SUSP 83 10             |
| 8 219  |                             |          |               |           | 67                             | 820               | 51   | 7 720               | 1 517.6                    | 1953         | 79 08 - GPP                    |
| 539    | 1.08                        | 0.111    | 0.38          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 7 680  | 3.39                        | 0.111    | 0.38          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 785    | 0.83                        | 0.120    | 0.40          | 0.81      | 66                             | 817               | 56   | 7 696               | 1 538.5                    | 1981         | 85 12                          |
| 128    | 1.55                        | 0.120    | 0.34          | 0.83      | 70                             | 817               | 30   | 7 000               | 1 603.4                    | 1984         | 85 08                          |
| 561    | 1.00                        | 0.100    | 0.34          | 0.81      | 66                             | 817               | 56   | 7 696               | 1 602.3                    | 1981         | 85 12                          |
| 32     | 7.96                        | 0.130    | 0.28          | 0.80      | 71                             | 860               | 71   | 14 130              | 1 754.1                    | 1958         | 64 04 - ABAND 70 06            |
| 162    | 2.44                        | 0.130    | 0.25          | 0.79      | 76                             | 860               | 67   | 14 550              | 1 733.1                    | 1959         | 75 12 - GPP                    |
| 65     | 2.44                        | 0.100    | 0.40          | 0.80      | 84                             | 870               | 67   | 14 850              | 1 723.9                    | 1975         | 77 06 - GPP                    |
| 10 543 |                             |          |               |           | 130                            | 815               | 77   | 17 510              | 2 134.5                    | 1956         | 82 12 - GPP                    |
| 200    | 8.80                        | 0.044    | 0.23          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 10 343 | 10.40                       | 0.044    | 0.23          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 16     | 1.00                        | 0.220    | 0.52          | 0.82      | 70                             | 888               | 54   | 10 652              | 1 033.0                    | 1983         | 83 10 - SUSP 83 10             |
| 64     | 4.90                        | 0.097    | 0.30          | 0.70      | 150                            | 904               | 51   | 15 130              | 1 749.7                    | 1975         | 82 12 - SUSP 81 12             |
| 4 206  | 1.46                        | 0.170    | 0.34          | 0.87      | 48                             | 839               | 54   | 9 061               | 1 409.3                    | 1969         | 83 05 - GPP                    |
| 65     | 4.57                        | 0.170    | 0.30          | 0.87      | 51                             | 849               | 48   | 8 360               | 1 486.2                    | 1977         | 83 12 - SUSP 78 01             |
| 11 620 |                             |          |               |           | 122                            | 820               | 96   | 24 200              | 2 641.1                    | 1959         | 85 12                          |
| 3 316  | 20.84                       | 0.090    | 0.16          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 8 304  | 20.84                       | 0.090    | 0.16          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 4 602  |                             |          |               |           | 184                            | 815               | 97   | 24 820              | 2 695.0                    | 1959         | 85 05                          |
| 64     | 4.30                        | 0.060    | 0.17          | 0.62      |                                |                   |      |                     |                            |              |                                |
| 4 538  | 19.54                       | 0.092    | 0.17          | 0.61      |                                |                   |      |                     |                            |              |                                |

TABLE 2-4

| FIELD<br>POOL                    | 1                              | 2        | 3        | 4                              | 5                              | 6                              | 7                              | 8                                    |
|----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>JUDY CREEK SOUTH 062-11W5</b> |                                |          |          |                                |                                |                                |                                |                                      |
| BEAVERHILL LAKE WATER FLOOD      | 1 110.0                        | 0.20     | 0.15     | 222.0                          | 167.0                          | 389.0                          | 325.9                          | 63.1                                 |
| BEAVERHILL LAKE B                | 489.0                          | 0.12     |          | 58.7                           |                                | 58.7                           | 39.1                           | 19.6                                 |
| BEAVERHILL LAKE C                | 1 500.0                        | 0.10     |          | 150.0                          |                                | 150.0                          | 64.9                           | 85.1                                 |
| BEAVERHILL LAKE D                | 283.0                          | 0.15     |          | 42.5                           |                                | 42.5                           | 0.5                            | 42.0                                 |
| <b>JUMPBUSH 020-19W4</b>         |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                | 2 820.0                        | 0.10     |          | 282.0                          |                                | 282.0                          | 81.0                           | 201.0                                |
| UPPER MANNVILLE E                | 384.0                          | 0.15     |          | 57.6                           |                                | 57.6                           | 33.3                           | 24.3                                 |
| UPPER MANNVILLE F                | 265.0                          | 0.10     |          | 26.5                           |                                | 26.5                           | 11.7                           | 14.8                                 |
| UPPER MANNVILLE G                | 102.0                          | 0.01     |          | 1.0                            |                                | 1.0                            | 0.7                            | 0.3                                  |
| UPPER MANNVILLE I                | 455.0                          | 0.15     |          | 68.3                           |                                | 68.3                           | 2.8                            | 65.5                                 |
| <b>KAKUT 075-03W6</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| CHARLIE LAKE A                   | 360.0                          | 0.15     |          | 54.0                           |                                | 54.0                           | 9.7                            | 44.3                                 |
| <b>KAKWA 063-05W6</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| MAIN CARDIUM A                   | 1 020.0                        | 0.05     |          | 51.0                           |                                | 51.0                           | 17.4                           | 33.6                                 |
| MAIN CARDIUM C                   | 34.6                           | 0.05     |          | 1.7                            |                                | 1.7                            | 0.1                            | 1.6                                  |
| A CARDIUM A TOTAL                | 3 770.0                        |          |          | 566.0                          | 260.0                          | 826.0                          | 241.8                          | 584.2                                |
| PRIMARY AREA                     | 1 170.0                        | 0.15     |          | 176.0                          |                                | 176.0                          |                                |                                      |
| GAS FLOOD AREA                   | 2 600.0                        | 0.15     | 0.10     | 390.0                          | 260.0                          | 650.0                          |                                |                                      |
| C CARDIUM A                      | 291.0                          | 0.13     |          | 37.8                           |                                | 37.8                           | 17.8                           | 20.0                                 |
| C CARDIUM B                      | 324.0                          | 0.12     |          | 38.9                           |                                | 38.9                           | 9.7                            | 29.2                                 |
| <b>KAYBOB 064-19W5</b>           |                                |          |          |                                |                                |                                |                                |                                      |
| GETHING C                        | 186.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| GETHING D                        | 205.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| CADOMIN B                        | 5 760.0                        | <0.02    |          | 80.0                           |                                | 80.0                           | 70.3                           | 9.7                                  |
| CADOMIN C                        | 72.9                           | 0.10     |          | 7.3                            |                                | 7.3                            | 5.4                            | 1.9                                  |
| NISKU C                          | 1 100.0                        | <0.01    |          | 7.5                            |                                | 7.5                            | 7.5                            |                                      |
| BEAVERHILL LAKE A WATER FLOOD    | 47 700.0                       | 0.16     | 0.26     | 7 630.0                        | 12 400.0                       | 20 000.0                       | 15 111.6                       | 4 888.4                              |
| BEAVERHILL LAKE B                | 1 270.0                        | 0.16     |          | 203.0                          |                                | 203.0                          | 97.7                           | 105.3                                |
| <b>KAYBOB SOUTH 060-19W5</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| DUNVEGAN A                       | 174.0                          | <0.02    |          | 2.4                            |                                | 2.4                            | 2.4                            |                                      |
| DUNVEGAN B                       | 808.0                          | 0.10     |          | 80.8                           |                                | 80.8                           | 12.0                           | 68.8                                 |
| BLUESKY A                        | 63.9                           | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| GETHING C                        | 98.7                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| TRIASSIC A TOTAL                 | 34 600.0                       |          |          | 5 830.0                        | 11 900.0                       | 17 700.0                       | 10 893.7                       | 6 806.3                              |
| PRIMARY AREA                     | 255.0                          | 0.15     |          | 38.3                           |                                | 38.3                           |                                |                                      |
| SOLVENT FLOOD AREA               | 14 500.0                       | 0.17     | 0.44     | 2 420.0                        | 6 380.0                        | 8 800.0                        |                                |                                      |
| WATER FLOOD AREA                 | 19 800.0                       | 0.17     | 0.30     | 3 370.0                        | 5 530.0                        | 8 900.0                        |                                |                                      |
| <b>KEHD 011-22W4</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| COLORADO A                       | 388.0                          | 0.10     |          | 38.8                           |                                | 38.8                           | 25.2                           | 13.6                                 |
| BOW ISLAND C                     | 345.0                          | 0.03     |          | 10.4                           |                                | 10.4                           | 5.4                            | 5.0                                  |
| BOW ISLAND F                     | 189.0                          | 0.10     |          | 18.9                           |                                | 18.9                           | 3.8                            | 15.1                                 |
| BOW ISLAND G                     | 474.0                          | 0.10     |          | 47.4                           |                                | 47.4                           | 13.7                           | 33.7                                 |
| ELKTON A                         | 192.0                          | 0.08     |          | 15.4                           |                                | 15.4                           | 9.4                            | 6.0                                  |
| PEKISKO A                        | 242.0                          | <0.02    |          | 2.7                            |                                | 2.7                            | 2.7                            |                                      |
| <b>KILLAM 043-10W4</b>           |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER VIKING B                   | 318.0                          | 0.15     |          | 47.7                           |                                | 47.7                           | 45.0                           | 2.7                                  |
| UPPER VIKING C                   | 44.8                           | 0.10     |          | 4.5                            |                                | 4.5                            | 2.6                            | 1.9                                  |
| UPPER VIKING D                   | 28.4                           | 0.10     |          | 2.8                            |                                | 2.8                            | 0.5                            | 2.3                                  |
| UPPER VIKING E                   | 70.0                           | 0.10     |          | 7.0                            |                                | 7.0                            | 0.3                            | 6.7                                  |
| UPPER VIKING H                   | 388.0                          | 0.10     |          | 38.8                           |                                | 38.8                           | 6.3                            | 32.5                                 |
| GLAUCONITIC S                    | 2 300.0                        | 0.20     |          | 460.0                          |                                | 460.0                          | 73.9                           | 386.1                                |
| <b>KNAPPEN 001-11W4</b>          |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                | 318.0                          | 0.10     |          | 31.8                           |                                | 31.8                           | 29.9                           | 1.9                                  |
| LOWER MANNVILLE B                | 278.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| LOWER MANNVILLE C                | 378.0                          | 0.08     |          | 30.4                           |                                | 30.4                           | 21.7                           | 8.7                                  |
| LOWER MANNVILLE F                | 229.0                          | 0.05     |          | 11.5                           |                                | 11.5                           | 4.1                            | 7.4                                  |
| <b>KNOPCIK 074-10W6</b>          |                                |          |          |                                |                                |                                |                                |                                      |
| CHARLIE LAKE A                   | 222.0                          | 0.10     |          | 22.2                           |                                | 22.2                           | 0.1                            | 22.1                                 |
| HALFWAY A                        | 193.0                          | 0.10     |          | 19.3                           |                                | 19.3                           | 0.5                            | 18.8                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 956   | 3.60                        | 0.069    | 0.18          | 0.57      | 229                            | 815               | 85   | 24 820              | 2 738.6                    | 1961         | 84 12                          |
| 400   | 4.47                        | 0.050    | 0.23          | 0.71      | 112                            | 815               | 89   | 25 350              | 2 707.5                    | 1961         | 82 06                          |
| 1 230 | 3.08                        | 0.068    | 0.18          | 0.71      | 112                            | 815               | 84   | 23 170              | 2 726.1                    | 1971         | 85 12                          |
| 128   | 8.50                        | 0.050    | 0.35          | 0.80      | 176                            | 828               | 92   | 24 086              | 2 699.5                    | 1984         | 85 04                          |
| 341   | 6.20                        | 0.210    | 0.25          | 0.85      | 75                             | 876               | 41   | 11 940              | 1 368.0                    | 1977         | 82 06                          |
| 128   | 2.10                        | 0.210    | 0.20          | 0.85      | 75                             | 876               | 41   | 11 700              | 1 350.7                    | 1977         | 82 06                          |
| 64    | 4.62                        | 0.160    | 0.30          | 0.80      | 93                             | 865               | 39   | 11 980              | 1 344.3                    | 1976         | 79 07 - GPP                    |
| 64    | 1.70                        | 0.180    | 0.35          | 0.80      | 90                             | 865               | 36   | 12 521              | 1 354.5                    | 1980         | 83 12 - GPP                    |
| 64    | 4.30                        | 0.240    | 0.18          | 0.84      | 72                             | 861               | 40   | 11 742              | 1 303.2                    | 1984         | 85 04                          |
| 247   | 1.88                        | 0.134    | 0.32          | 0.85      | 68                             | 847               | 49   | 13 715              | 1 510.0                    | 1982         | 85 11                          |
| 320   | 5.34                        | 0.110    | 0.18          | 0.66      | 192                            | 790               | 53   | 20 248              | 1 813.4                    | 1979         | 81 12                          |
| 64    | 1.41                        | 0.086    | 0.28          | 0.62      | 132                            | 798               | 53   | 20 209              | 1 757.6                    | 1979         | 81 07 - SUSP 83 08             |
| 2 624 |                             |          |               |           | 254                            | 794               | 52   | 21 248              | 1 826.1                    | 1978         | 85 12                          |
| 1 216 | 1.79                        | 0.115    | 0.22          | 0.60      |                                |                   |      |                     |                            |              | - GPP                          |
| 1 408 | 3.26                        | 0.120    | 0.20          | 0.59      |                                |                   |      |                     |                            |              |                                |
| 256   | 1.51                        | 0.150    | 0.15          | 0.59      | 300                            | 780               | 52   | 21 213              | 1 852.7                    | 1979         | 80 07                          |
| 204   | 2.61                        | 0.120    | 0.16          | 0.59      | 268                            | 790               | 55   | 20 558              | 1 785.6                    | 1980         | 85 02 - GPP                    |
| 64    | 6.70                        | 0.100    | 0.49          | 0.85      | 48                             | 885               | 71   | 8 100               | 1 754.2                    | 1981         | 83 12 - SUSP 82 09             |
| 64    | 2.70                        | 0.170    | 0.17          | 0.84      | 96                             | 874               | 60   | 14 175              | 1 753.9                    | 1981         | 84 12 - SUSP 83 03             |
| 1 040 | 5.82                        | 0.160    | 0.30          | 0.85      | 57                             | 887               | 73   | 14 480              | 1 810.5                    | 1962         | 83 12 - GPP                    |
| 45    | 1.83                        | 0.160    | 0.30          | 0.79      | 56                             | 892               | 66   | 14 200              | 1 740.6                    | 1966         | 83 12 - GPP                    |
| 64    | 36.00                       | 0.072    | 0.15          | 0.78      | 100                            | 837               | 74   | 13 880              | 2 541.5                    | 1978         | 85 07 - SUSP 84 03             |
| 7 288 | 18.29                       | 0.074    | 0.22          | 0.62      | 199                            | 811               | 113  | 31 920              | 2 980.9                    | 1957         | 65 02                          |
| 501   | 8.78                        | 0.064    | 0.26          | 0.61      | 435                            | 797               | 109  | 30 270              | 2 949.5                    | 1961         | 76 08                          |
| 64    | 3.64                        | 0.160    | 0.40          | 0.78      | 94                             | 830               | 60   | 12 410              | 1 618.4                    | 1977         | 79 11 - ABAND 83 01            |
| 256   | 4.33                        | 0.130    | 0.34          | 0.85      | 82                             | 831               | 55   | 13 710              | 1 658.6                    | 1979         | 82 09 - GPP                    |
| 65    | 1.52                        | 0.120    | 0.28          | 0.75      | 103                            | 829               | 82   | 12 800              | 2 024.8                    | 1976         | 83 12 - ABAND 80 02            |
| 64    | 3.06                        | 0.120    | 0.40          | 0.70      | 156                            | 824               | 82   | 14 451              | 2 077.8                    | 1979         | 84 12 - SUSP 84 09             |
| 8 442 |                             |          |               |           | 123                            | 815               | 86   | 17 450              | 2 095.5                    | 1963         | 85 09                          |
| 128   | 2.33                        | 0.140    | 0.14          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 3 249 | 6.73                        | 0.105    | 0.11          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 5 065 | 5.89                        | 0.105    | 0.11          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 256   | 1.25                        | 0.187    | 0.28          | 0.90      | 24                             | 870               | 38   | 7 580               | 1 133.2                    | 1974         | 75 09 - GPP                    |
| 65    | 6.95                        | 0.163    | 0.50          | 0.94      | 20                             | 839               | 49   | 3 480               | 1 175.6                    | 1975         | 80 12 - GPP                    |
| 64    | 3.80                        | 0.150    | 0.45          | 0.94      | 23                             | 865               | 30   | 3 887               | 997.1                      | 1981         | 82 06                          |
| 320   | 1.71                        | 0.140    | 0.32          | 0.91      | 27                             | 873               | 31   | 4 154               | 957.5                      | 1984         | 85 11                          |
| 64    | 3.05                        | 0.160    | 0.14          | 0.71      | 128                            | 839               | 42   | 14 840              | 1 550.2                    | 1973         | 83 12 - GPP                    |
| 64    | 19.00                       | 0.030    | 0.15          | 0.78      | 92                             | 878               | 50   | 18 777              | 1 902.5                    | 1979         | 83 12 - ABAND 83 10            |
| 244   | 1.16                        | 0.190    | 0.35          | 0.91      | 38                             | 849               | 27   | 9 560               | 783.3                      | 1958         | 75 12 - GPP                    |
| 32    | 1.22                        | 0.250    | 0.50          | 0.91      | 39                             | 849               | 28   | 5 630               | 788.2                      | 1973         | 83 12                          |
| 32    | 1.30                        | 0.150    | 0.50          | 0.91      | 39                             | 887               | 37   | 5 020               | 788.5                      | 1971         | 79 06 - SUSP 85 01             |
| 64    | 1.50                        | 0.160    | 0.50          | 0.91      | 39                             | 854               | 34   | 6 220               | 817.3                      | 1979         | 79 10 - SUSP 85 02             |
| 160   | 2.15                        | 0.210    | 0.41          | 0.91      | 26                             | 851               | 36   | 4 315               | 795.5                      | 1981         | 84 11                          |
| 273   | 4.50                        | 0.260    | 0.20          | 0.90      | 39                             | 860               | 34   | 6 540               | 948.7                      | 1979         | 84 08                          |
| 97    | 2.44                        | 0.200    | 0.30          | 0.96      | 18                             | 820               | 28   | 9 510               | 961.3                      | 1965         | 77 12 - GPP                    |
| 65    | 2.44                        | 0.250    | 0.20          | 0.88      | 42                             | 829               | 28   | 6 840               | 831.8                      | 1966         | 83 12 - SUSP 76 02             |
| 130   | 1.52                        | 0.250    | 0.20          | 0.96      | 18                             | 844               | 34   | 6 030               | 814.4                      | 1972         | 73 12 - GPP                    |
| 64    | 3.70                        | 0.200    | 0.45          | 0.88      | 51                             | 830               | 29   | 6 500               | 810.9                      | 1975         | 83 12 - GPP                    |
| 64    | 3.30                        | 0.200    | 0.25          | 0.70      | 120                            | 821               | 76   | 13 500              | 2 124.9                    | 1981         | 82 11 - SUSP 84 08             |
| 64    | 7.99                        | 0.084    | 0.35          | 0.69      | 149                            | 807               | 64   | 21 668              | 2 201.7                    | 1982         | 83 03                          |



TABLE 2-4

| FIELD<br>POOL                     | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| LACOMBE 040-25W4                  |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU A                           | 113.0                          | 0.13     |          | 14.7                           |                                | 14.7                           | 13.1                           | 1.6                                  |
| NISKU B                           | 75.6                           | 0.10     |          | 7.6                            |                                | 7.6                            | 3.1                            | 4.5                                  |
| NISKU C                           | 176.0                          | 0.20     |          | 35.2                           |                                | 35.2                           | 6.9                            | 28.3                                 |
| LANAWAY 036-03W5                  |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM                           | 2 920.0                        | 0.10     |          | 292.0                          |                                | 292.0                          | 173.3                          | 118.7                                |
| CARDIUM B                         | 292.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| CARDIUM C                         | 732.0                          | 0.10     |          | 73.2                           |                                | 73.2                           | 27.3                           | 45.9                                 |
| SECOND WHITE                      | 334.0                          | 0.04     |          | 13.4                           |                                | 13.4                           | 11.3                           | 2.1                                  |
| SPECKS A                          |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE                         | 3 500.0                        | 0.10     |          | 350.0                          |                                | 350.0                          | 175.2                          | 174.8                                |
| MANNVILLE B                       | 320.0                          | 0.05     |          | 16.0                           |                                | 16.0                           | 5.0                            | 11.0                                 |
| MANNVILLE C                       | 23.0                           | 0.10     |          | 2.3                            |                                | 2.3                            | 0.3                            | 2.0                                  |
| MANNVILLE D                       | 145.0                          | 0.10     |          | 14.5                           |                                | 14.5                           | 5.4                            | 9.1                                  |
| MANNVILLE E                       | 391.0                          | 0.03     |          | 11.7                           |                                | 11.7                           | 1.2                            | 10.5                                 |
| MANNVILLE F                       | 223.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| GLAUCONITIC A &<br>BASAL QUARTZ A | 229.0                          | 0.03     |          | 7.0                            |                                | 7.0                            | 1.0                            | 6.0                                  |
| ELKTON A                          | 1 010.0                        | 0.10     |          | 101.0                          |                                | 101.0                          | 6.3                            | 94.7                                 |
| PEKISKO A                         | 101.0                          | 0.10     |          | 10.1                           |                                | 10.1                           | 2.7                            | 7.4                                  |
| D-3 A                             | 245.0                          | 0.01     |          | 2.4                            |                                | 2.4                            | 2.4                            |                                      |
| LARNE 116-03W6                    |                                |          |          |                                |                                |                                |                                |                                      |
| MUSKEG B                          | 144.0                          | 0.10     |          | 14.4                           |                                | 14.4                           | 8.9                            | 5.5                                  |
| KEG RIVER A                       | 477.0                          | 0.10     |          | 47.7                           |                                | 47.7                           | 14.1                           | 33.6                                 |
| KEG RIVER B                       | 340.0                          | 0.10     |          | 34.0                           |                                | 34.0                           | 23.1                           | 10.9                                 |
| KEG RIVER C                       | 718.0                          | 0.07     |          | 50.3                           |                                | 50.3                           | 44.4                           | 5.9                                  |
| KEG RIVER D                       | 397.0                          | 0.20     |          | 79.4                           |                                | 79.4                           | 61.9                           | 17.5                                 |
| KEG RIVER E                       | 338.0                          | 0.20     |          | 67.7                           |                                | 67.7                           | 49.5                           | 18.2                                 |
| KEG RIVER F                       | 127.0                          | 0.10     |          | 12.7                           |                                | 12.7                           | 10.7                           | 2.0                                  |
| KEG RIVER G                       | 284.0                          | <0.14    |          | 37.8                           |                                | 37.8                           | 37.8                           |                                      |
| KEG RIVER H                       | 413.0                          | 0.03     |          | 12.4                           |                                | 12.4                           | 11.8                           | 0.6                                  |
| KEG RIVER I                       | 478.0                          | <0.05    |          | 19.6                           |                                | 19.6                           | 19.6                           |                                      |
| KEG RIVER J                       | 510.0                          | <0.02    |          | 7.7                            |                                | 7.7                            | 7.7                            |                                      |
| KEG RIVER K                       | 397.0                          | 0.15     |          | 59.6                           |                                | 59.6                           | 52.0                           | 7.6                                  |
| KEG RIVER L                       | 292.0                          | 0.04     |          | 11.7                           |                                | 11.7                           | 9.4                            | 2.3                                  |
| KEG RIVER M                       | 280.0                          | 0.20     |          | 56.0                           |                                | 56.0                           | 8.0                            | 48.0                                 |
| KEG RIVER N                       | 238.0                          | <0.07    |          | 14.5                           |                                | 14.5                           | 14.5                           |                                      |
| KEG RIVER O                       | 143.0                          | 0.30     |          | 42.9                           |                                | 42.9                           | 26.9                           | 16.0                                 |
| KEG RIVER P                       | 346.0                          | 0.10     |          | 34.6                           |                                | 34.6                           | 13.7                           | 20.9                                 |
| KEG RIVER Q                       | 159.0                          | 0.10     |          | 15.9                           |                                | 15.9                           | 10.6                           | 5.3                                  |
| KEG RIVER R                       | 159.0                          | 0.25     |          | 39.8                           |                                | 39.8                           | 30.2                           | 9.6                                  |
| KEG RIVER S                       | 600.0                          | 0.03     |          | 18.0                           |                                | 18.0                           | 10.5                           | 7.5                                  |
| KEG RIVER T                       | 1 100.0                        | 0.20     |          | 220.0                          |                                | 220.0                          | 2.1                            | 217.9                                |
| KEG RIVER U                       | 168.0                          | 0.20     |          | 33.6                           |                                | 33.6                           | 5.1                            | 28.5                                 |
| KEG RIVER V                       | 420.0                          | 0.10     |          | 42.0                           |                                | 42.0                           | 9.4                            | 32.6                                 |
| KEG RIVER W                       | 272.0                          | 0.15     |          | 40.8                           |                                | 40.8                           | 3.1                            | 37.7                                 |
| KEG RIVER X                       | 79.3                           | 0.25     |          | 19.8                           |                                | 19.8                           | 4.3                            | 15.5                                 |
| LATOR 063-02W6                    |                                |          |          |                                |                                |                                |                                |                                      |
| DUNVEGAN A                        | 1 540.0                        | 0.10     |          | 154.0                          |                                | 154.0                          | 113.8                          | 40.2                                 |
| LEAHURST 039-18W4                 |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING E                          | 293.0                          | 0.10     |          | 29.3                           |                                | 29.3                           |                                | 29.3                                 |
| MANNVILLE C                       | 70.9                           | 0.05     |          | 3.5                            |                                | 3.5                            | 1.0                            | 2.5                                  |
| MANNVILLE M                       | 153.0                          | 0.10     |          | 15.3                           |                                | 15.3                           | 1.1                            | 14.2                                 |
| BASAL QUARTZ A                    | 110.0                          | 0.05     |          | 5.5                            |                                | 5.5                            | 1.6                            | 3.9                                  |
| BASAL QUARTZ B                    | 45.9                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BASAL QUARTZ C                    | 137.0                          | 0.10     |          | 13.7                           |                                | 13.7                           | 1.2                            | 12.5                                 |
| LEAMAN 055-12W5                   |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE G                 | 359.0                          | 0.10     |          | 35.9                           |                                | 35.9                           | 9.2                            | 26.7                                 |
| NORDEGG A                         | 383.0                          | 0.10     |          | 38.3                           |                                | 38.3                           | 0.8                            | 37.5                                 |
| LEDUC-WOODBEND<br>050-26W4        |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE A                       | 1 450.0                        | 0.20     |          | 290.0                          |                                | 290.0                          | 271.1                          | 18.9                                 |
| BLAIRMORE B                       | 27.3                           | <0.08    |          | 2.1                            |                                | 2.1                            | 2.1                            |                                      |
| BLAIRMORE C                       | 63.1                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BLAIRMORE D                       | 404.0                          | <0.03    |          | 9.8                            |                                | 9.8                            | 9.8                            |                                      |
| BLAIRMORE E                       | 605.0                          | 0.04     |          | 24.2                           |                                | 24.2                           | 23.3                           | 0.9                                  |
| BLAIRMORE G                       | 130.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 6.18                        | 0.060    | 0.32          | 0.70      |                                |                   | 70   |                     | 1 992.8                    | 1958         | 78 12 - GPP                    |
| 64    | 4.20                        | 0.055    | 0.30          | 0.73      | 105                            | 810               | 73   | 16 478              | 1 984.3                    | 1982         | 85 03                          |
| 128   | 3.05                        | 0.076    | 0.15          | 0.70      | 143                            | 822               | 67   | 17 025              | 1 972.2                    | 1982         | 85 03                          |
| 1 869 | 2.35                        | 0.110    | 0.28          | 0.84      | 53                             | 825               | 54   | 21 678              | 1 807.5                    | 1960         | 82 07                          |
| 129   | 3.66                        | 0.090    | 0.22          | 0.88      | 53                             | 839               | 54   |                     | 1 773.6                    | 1973         | 73 12 - ABAND 73 11            |
| 256   | 4.30                        | 0.110    | 0.28          | 0.84      | 53                             | 825               | 54   | 20 430              | 1 776.9                    | 1960         | 83 04                          |
| 65    | 8.53                        | 0.120    | 0.30          | 0.72      | 89                             | 865               | 59   | 21 900              | 1 860.0                    | 1977         | 83 12 - GPP                    |
| 840   | 6.60                        | 0.110    | 0.25          | 0.76      | 71                             | 876               | 60   | 16 690              | 2 274.9                    | 1959         | 83 11                          |
| 64    | 6.80                        | 0.124    | 0.22          | 0.76      | 76                             | 853               | 76   | 18 783              | 2 320.5                    | 1981         | 84 01                          |
| 64    | 1.00                        | 0.090    | 0.50          | 0.80      | 88                             | 853               | 64   | 10 266              | 2 298.5                    | 1981         | 82 06 - GPP                    |
| 64    | 3.70                        | 0.120    | 0.25          | 0.68      | 134                            | 861               | 72   | 18 653              | 2 294.2                    | 1981         | 83 03                          |
| 64    | 15.90                       | 0.100    | 0.52          | 0.80      | 100                            | 892               | 66   | 18 420              | 2 356.3                    | 1982         | 84 12                          |
| 64    | 5.00                        | 0.150    | 0.43          | 0.68      | 152                            | 843               | 82   | 16 123              | 2 237.8                    | 1980         | 84 07 - SUSP 83 04             |
| 128   | 4.07                        | 0.090    | 0.39          | 0.80      |                                |                   |      |                     | 2 229.0                    | 1979         | 82 05 - SUSP 85 02             |
| 128   | 12.35                       | 0.120    | 0.29          | 0.75      | 103                            | 904               | 74   | 18 150              | 2 395.8                    | 1974         | 85 09                          |
| 64    | 5.26                        | 0.060    | 0.35          | 0.77      | 99                             | 876               | 64   | 17 499              | 2 267.3                    | 1977         | 84 03                          |
| 65    | 7.92                        | 0.100    | 0.15          | 0.56      | 261                            | 788               | 82   | 24 240              | 2 923.3                    | 1964         | 73 02 - SUSP 72 09             |
| 35    | 17.68                       | 0.040    | 0.35          | 0.90      | 35                             | 898               | 64   | 13 650              | 1 407.3                    | 1973         | 80 11 - GPP                    |
| 28    | 30.33                       | 0.078    | 0.20          | 0.90      | 22                             | 887               | 69   | 13 470              | 1 429.8                    | 1969         | 85 09                          |
| 17    | 37.45                       | 0.075    | 0.20          | 0.89      | 37                             | 898               | 61   | 13 460              | 1 415.8                    | 1968         | 83 12 - GPP                    |
| 16    | 60.96                       | 0.092    | 0.10          | 0.88      | 46                             | 898               | 61   | 13 710              | 1 427.1                    | 1968         | 81 12                          |
| 9     | 72.10                       | 0.089    | 0.21          | 0.87      | 38                             | 876               | 70   | 13 800              | 1 467.3                    | 1968         | 83 01                          |
| 17    | 39.93                       | 0.071    | 0.20          | 0.88      | 31                             | 876               | 72   | 13 470              | 1 425.2                    | 1969         | 73 12                          |
| 21    | 29.75                       | 0.032    | 0.30          | 0.89      | 37                             | 892               | 61   | 12 890              | 1 399.6                    | 1969         | 78 07 - GPP                    |
| 13    | 47.61                       | 0.061    | 0.15          | 0.89      | 35                             | 898               | 63   | 13 410              | 1 410.3                    | 1969         | 83 12 - SUSP 79 09             |
| 14    | 56.93                       | 0.071    | 0.18          | 0.89      | 27                             | 887               | 62   | 13 090              | 1 417.6                    | 1971         | 84 05 - SUSP 85 01             |
| 13    | 47.37                       | 0.098    | 0.10          | 0.88      | 39                             | 881               | 62   | 13 070              | 1 409.1                    | 1971         | 81 12 - SUSP 79 12             |
| 15    | 42.34                       | 0.107    | 0.13          | 0.89      | 35                             | 887               | 61   | 12 450              | 1 421.3                    | 1971         | 83 12 - SUSP 80 02             |
| 13    | 48.62                       | 0.083    | 0.18          | 0.90      | 35                             | 887               | 61   | 13 310              | 1 408.2                    | 1972         | 85 12 - GPP                    |
| 11    | 58.61                       | 0.066    | 0.22          | 0.88      | 43                             | 887               | 50   | 13 130              | 1 444.4                    | 1971         | 84 05 - SUSP 85 01             |
| 12    | 38.60                       | 0.084    | 0.18          | 0.88      | 35                             | 892               | 64   | 13 170              | 1 413.7                    | 1972         | 84 12                          |
| 27    | 22.77                       | 0.055    | 0.20          | 0.88      | 33                             | 892               | 54   | 14 320              | 1 397.2                    | 1972         | 81 12 - SUSP 80 04             |
| 7     | 40.14                       | 0.064    | 0.15          | 0.90      | 31                             | 904               | 64   | 14 820              | 1 406.7                    | 1971         | 73 07 - GPP                    |
| 16    | 38.10                       | 0.078    | 0.20          | 0.90      | 35                             | 910               | 70   | 13 360              | 1 410.6                    | 1972         | 80 11 - GPP                    |
| 14    | 17.98                       | 0.078    | 0.11          | 0.90      | 27                             | 904               | 63   | 13 560              | 1 411.8                    | 1971         | 81 12 - SUSP 85 03             |
| 25    | 18.17                       | 0.049    | 0.20          | 0.89      | 45                             | 881               | 62   | 13 830              | 1 413.4                    | 1969         | 83 12 - GPP                    |
| 28    | 57.33                       | 0.070    | 0.40          | 0.89      | 22                             | 869               | 80   | 13 622              | 1 445.5                    | 1982         | 84 12                          |
| 64    | 43.50                       | 0.060    | 0.25          | 0.88      | 38                             | 920               | 61   | 13 566              | 1 412.3                    | 1983         | 83 08 - SUSP 83 12             |
| 19    | 18.00                       | 0.050    | 0.13          | 0.88      | 38                             | 909               | 61   | 12 887              | 1 408.5                    | 1983         | 84 11                          |
| 11    | 51.70                       | 0.114    | 0.25          | 0.88      | 38                             | 894               | 61   | 12 515              | 1 408.3                    | 1983         | 85 12                          |
| 14    | 24.30                       | 0.100    | 0.12          | 0.88      | 47                             | 919               | 62   | 13 241              | 1 408.9                    | 1984         | 85 06                          |
| 12    | 19.50                       | 0.050    | 0.23          | 0.88      | 43                             | 884               | 48   | 13 026              | 1 415.4                    | 1972         | 85 12                          |
| 612   | 2.83                        | 0.174    | 0.30          | 0.73      | 119                            | 829               | 67   | 22 830              | 2 174.4                    | 1957         | 71 04                          |
| 64    | 7.40                        | 0.125    | 0.45          | 0.90      | 35                             | 876               | 43   | 6 545               | 1 100.9                    | 1982         | 83 03                          |
| 64    | 0.92                        | 0.210    | 0.40          | 0.95      | 18                             | 892               | 44   | 10 480              | 1 262.8                    | 1974         | 84 12 - GPP                    |
| 64    | 2.70                        | 0.150    | 0.38          | 0.95      | 16                             | 877               | 39   | 10 581              | 1 284.0                    | 1982         | 82 12                          |
| 64    | 2.50                        | 0.150    | 0.46          | 0.85      | 57                             | 897               | 55   | 10 726              | 1 299.7                    | 1978         | 84 12                          |
| 64    | 1.10                        | 0.150    | 0.45          | 0.79      | 88                             | 860               | 55   | 10 575              | 1 303.9                    | 1979         | 84 12 - SUSP 84 12             |
| 64    | 2.40                        | 0.150    | 0.30          | 0.85      | 66                             | 873               | 46   | 9 335               | 1 235.2                    | 1980         | 80 12 - SUSP 84 07             |
| 192   | 2.94                        | 0.122    | 0.34          | 0.79      | 87                             | 886               | 71   | 15 110              | 1 877.6                    | 1981         | 85 09                          |
| 64    | 11.90                       | 0.117    | 0.50          | 0.86      | 65                             | 878               | 50   | 11 000              | 1 614.9                    | 1981         | 82 05                          |
| 338   | 3.90                        | 0.183    | 0.23          | 0.78      | 94                             | 834               | 57   | 9 790               | 1 305.2                    | 1951         | 81 12 - GPP                    |
| 16    | 1.86                        | 0.150    | 0.25          | 0.81      | 93                             | 834               | 57   | 9 650               | 1 297.8                    | 1954         | 71 12 - ABAND 62 06            |
| 16    | 4.57                        | 0.150    | 0.28          | 0.79      | 93                             | 825               | 58   | 10 170              | 1 316.7                    | 1954         | 62 05 - ABAND 56 08            |
| 69    | 8.23                        | 0.150    | 0.45          | 0.86      | 53                             | 887               | 57   | 10 340              | 1 376.2                    | 1952         | 74 04 - ABAND 74 03            |
| 65    | 10.97                       | 0.150    | 0.28          | 0.79      | 98                             | 825               | 60   | 10 240              | 1 347.8                    | 1952         | 62 10 - GPP                    |
| 16    | 9.45                        | 0.150    | 0.28          | 0.79      | 93                             | 825               | 59   | 10 240              | 1 358.5                    | 1953         | 68 03 - ABAND 54 11            |



TABLE 2-4

| FIELD<br>POOL                          | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| LEDUC-WOODBEND<br>050-26W4 (CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE H                            | 37.8                           | <0.02    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| BLAIRMORE J                            | 1 160.0                        | 0.50     |          | 580.0                          |                                | 580.0                          | 568.9                          | 11.1                                 |
| BLAIRMORE K                            | 307.0                          | 0.15     |          | 46.1                           |                                | 46.1                           | 41.9                           | 4.2                                  |
| BLAIRMORE CC                           | 256.0                          | 0.02     |          | 5.1                            |                                | 5.1                            | 1.0                            | 4.1                                  |
| BLAIRMORE GG                           | 145.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BLAIRMORE KK                           | 248.0                          | 0.10     |          | 24.8                           |                                | 24.8                           | 1.5                            | 23.3                                 |
| D-1 A                                  | 159.0                          | <0.03    |          | 4.0                            |                                | 4.0                            | 4.0                            |                                      |
| D-1 B                                  | 54.7                           | <0.18    |          | 9.8                            |                                | 9.8                            | 9.8                            |                                      |
| D-2 A WATER FLOOD                      | 32 700.0                       | <0.34    | 0.10     | 10 900.0                       | 3 270.0                        | 14 200.0                       | 14 038.0                       | 162.0                                |
| D-2 B                                  | 12 500.0                       | 0.27     |          | 3 380.0                        |                                | 3 380.0                        | 3 244.3                        | 135.7                                |
| D-2 C                                  | 413.0                          | 0.52     |          | 215.0                          |                                | 215.0                          | 213.9                          | 1.1                                  |
| D-2 D                                  | 99.5                           | 0.57     |          | 56.7                           |                                | 56.7                           | 52.3                           | 4.4                                  |
| D-2 E                                  | 192.0                          | 0.63     |          | 121.0                          |                                | 121.0                          | 115.0                          | 6.0                                  |
| D-2 F                                  | 318.0                          | 0.20     |          | 63.6                           |                                | 63.6                           | 52.2                           | 11.4                                 |
| D-3 A WATER FLOOD                      | 61 200.0                       | 0.55     | 0.10     | 33 700.0                       | 6 120.0                        | 39 800.0                       | 38 506.5                       | 1 293.5                              |
| D-3 B                                  | 2 380.0                        | 0.50     |          | 1 190.0                        |                                | 1 190.0                        | 1 170.1                        | 19.9                                 |
| D-3 C                                  | 144.0                          | 0.51     |          | 73.7                           |                                | 73.7                           | 73.7                           |                                      |
| D-3 D                                  | 113.0                          | 0.39     |          | 44.3                           |                                | 44.3                           | 44.3                           |                                      |
| D-3 E                                  | 403.0                          | 0.10     |          | 40.3                           |                                | 40.3                           | 22.9                           | 17.4                                 |
| D-3 F                                  | 1 030.0                        | 0.70     |          | 721.0                          |                                | 721.0                          | 563.1                          | 157.9                                |
| D-3 G                                  | 153.0                          | 0.30     |          | 45.9                           |                                | 45.9                           | 16.2                           | 29.7                                 |
| D-3 H                                  | 93.6                           | 0.40     |          | 37.4                           |                                | 37.4                           | 3.3                            | 34.1                                 |
| LEEDALE 043-04W5                       |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                              | 354.0                          | 0.05     |          | 17.7                           |                                | 17.7                           | 6.6                            | 11.1                                 |
| CARDIUM B                              | 111.0                          | 0.10     |          | 11.1                           |                                | 11.1                           | 1.1                            | 10.0                                 |
| LEGAL 057-25W4                         |                                |          |          |                                |                                |                                |                                |                                      |
| MIDDLE VIKING A                        | 410.0                          | 0.50     |          | 205.0                          |                                | 205.0                          | 190.3                          | 14.7                                 |
| MANNVILLE B                            | 38.1                           | <0.03    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| D-3 A                                  | 32.4                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LEO 036-17W4                           |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE A                            | 442.0                          | 0.03     |          | 13.3                           |                                | 13.3                           | 3.3                            | 10.0                                 |
| UPPER MANNVILLE A                      | 843.0                          | 0.10     |          | 84.3                           |                                | 84.3                           | 10.5                           | 73.8                                 |
| LOWER MANNVILLE B                      | 172.0                          | 0.05     |          | 8.6                            |                                | 8.6                            | 2.2                            | 6.4                                  |
| LOWER MANNVILLE C                      | 163.0                          | 0.10     |          | 16.3                           |                                | 16.3                           | 1.7                            | 14.6                                 |
| LOWER MANNVILLE D                      | 481.0                          | 0.03     |          | 14.4                           |                                | 14.4                           | 1.1                            | 13.3                                 |
| LITTLE SMOKY 067-22W5                  |                                |          |          |                                |                                |                                |                                |                                      |
| D-3                                    | 397.0                          | 0.50     |          | 199.0                          |                                | 199.0                          | 172.6                          | 26.4                                 |
| LOCHEND 027-03W5                       |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                              | 11 300.0                       | 0.08     |          | 904.0                          |                                | 904.0                          | 273.8                          | 630.2                                |
| CARDIUM C                              | 1 000.0                        | 0.01     |          | 10.0                           |                                | 10.0                           | 1.4                            | 8.6                                  |
| CARDIUM D                              | 57.0                           | 0.10     |          | 5.7                            |                                | 5.7                            |                                | 5.7                                  |
| CARDIUM E                              | 350.0                          | 0.01     |          | 3.5                            |                                | 3.5                            |                                | 3.5                                  |
| CARDIUM F                              | 36.0                           | 0.03     |          | 1.1                            |                                | 1.1                            |                                | 1.1                                  |
| LONE PINE CREEK<br>030-28W4            |                                |          |          |                                |                                |                                |                                |                                      |
| D-2 A                                  | 250.0                          | 0.25     |          | 62.5                           |                                | 62.5                           | 35.3                           | 27.2                                 |
| D-3 A                                  | 2 350.0                        | <0.02    |          | 29.0                           |                                | 29.0                           | 29.0                           |                                      |
| LONG COULEE 016-21W4                   |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE F                            | 106.0                          | <0.02    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| MANNVILLE L                            | 265.0                          | 0.02     |          | 5.3                            |                                | 5.3                            | 1.3                            | 4.0                                  |
| MANNVILLE T                            | 81.8                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| MANNVILLE X                            | 161.0                          | <0.01    |          | 1.2                            |                                | 1.2                            | 1.2                            |                                      |
| MANNVILLE Z                            | 126.0                          | 0.10     |          | 12.6                           |                                | 12.6                           | 6.6                            | 6.0                                  |
| GLAUCONITIC A                          | 182.0                          | 0.10     |          | 18.2                           |                                | 18.2                           | 1.6                            | 16.6                                 |
| GLAUCONITIC B                          | 236.0                          | 0.10     |          | 23.6                           |                                | 23.6                           | 1.6                            | 22.0                                 |
| GLAUCONITIC C                          | 476.0                          | 0.10     |          | 47.6                           |                                | 47.6                           | 8.2                            | 39.4                                 |
| GLAUCONITIC D                          | 125.0                          | 0.10     |          | 12.5                           |                                | 12.5                           | 6.0                            | 6.5                                  |
| GLAUCONITIC E                          | 61.3                           | 0.10     |          | 6.1                            |                                | 6.1                            | 0.6                            | 5.5                                  |
| GLAUCONITIC F                          | 111.0                          | 0.10     |          | 11.1                           |                                | 11.1                           | 3.7                            | 7.4                                  |
| GLAUCONITIC G                          | 118.0                          | 0.10     |          | 11.8                           |                                | 11.8                           | 1.8                            | 10.0                                 |
| LOON 085-09W5                          |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A TOTAL                    | 5 430.0                        |          |          | 163.0                          | 131.0                          | 294.0                          | 128.9                          | 165.1                                |
| PRIMARY AREA                           | 2 140.0                        | 0.03     |          | 64.2                           |                                | 64.2                           |                                |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9            | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA         | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha           | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 16           | 2.74                        | 0.150    | 0.28          | 0.79      | 93                             | 825               | 56   | 9 760               | 1 278.6                    | 1950         | 68 03 - ABAND 51 05            |
| 224          | 4.15                        | 0.200    | 0.20          | 0.78      | 93                             | 825               | 54   | 9 650               | 1 287.5                    | 1948         | 79 12 - GPP                    |
| 119          | 3.05                        | 0.143    | 0.28          | 0.82      | 98                             | 825               | 62   | 10 340              | 1 334.7                    | 1951         | 82 12 - SUSP 84 10             |
| 64           | 4.60                        | 0.150    | 0.28          | 0.80      | 98                             | 825               | 60   | 10 270              | 1 317.0                    | 1977         | 79 12 - GPP                    |
| 64           | 2.40                        | 0.220    | 0.45          | 0.78      | 98                             | 850               | 60   | 9 208               | 1 292.6                    | 1980         | 80 12 - SUSP 80 11             |
| 64           | 4.00                        | 0.220    | 0.45          | 0.80      | 83                             | 827               | 54   | 9 460               | 1 304.3                    | 1983         | 83 11 - SUSP 84 06             |
| 65           | 5.39                        | 0.074    | 0.25          | 0.82      | 71                             | 820               | 58   | 9 890               | 1 366.1                    | 1963         | 75 12 - SUSP 75 03             |
| 98           | 0.91                        | 0.100    | 0.25          | 0.82      | 74                             | 820               | 54   | 10 310              | 1 382.3                    | 1964         | 68 03 - SUSP 73 05             |
| 9 169        | 18.90                       | 0.034    | 0.26          | 0.75      | 115                            | 834               | 63   | 12 200              | 1 555.4                    | 1947         | 83 12 - GPP                    |
| 4 641        | 11.33                       | 0.048    | 0.34          | 0.75      | 98                             | 834               | 60   | 12 650              | 1 603.9                    | 1950         | 85 05 - GPP                    |
| 309          | 5.18                        | 0.043    | 0.20          | 0.75      | 110                            | 834               | 62   | 12 200              | 1 660.2                    | 1950         | 83 12 - GPP                    |
| 110          | 8.08                        | 0.020    | 0.30          | 0.80      | 109                            | 834               | 63   | 12 200              | 1 660.2                    | 1951         | 83 12 - GPP                    |
| 128          | 9.02                        | 0.028    | 0.30          | 0.85      | 109                            | 834               | 62   | 12 200              | 1 593.2                    | 1950         | 81 12 - GPP                    |
| 199          | 8.29                        | 0.033    | 0.24          | 0.77      | 111                            | 834               | 64   | 13 070              | 1 653.5                    | 1964         | 77 12 - GPP                    |
| 8 812        | 10.80                       | 0.100    | 0.14          | 0.75      | 98                             | 825               | 66   | 13 070              | 1 520.0                    | 1947         | 85 12                          |
| 751          | 7.99                        | 0.060    | 0.13          | 0.76      | 85                             | 825               | 66   | 13 070              | 1 653.5                    | 1948         | 73 12 - GPP                    |
| 53           | 5.18                        | 0.080    | 0.13          | 0.76      | 85                             | 825               | 67   | 13 070              | 1 649.6                    | 1950         | 71 12 - ABAND 71 10            |
| 24           | 8.84                        | 0.080    | 0.13          | 0.76      | 85                             | 825               | 67   | 13 070              | 1 590.1                    | 1949         | 72 05 - ABAND 66 01            |
| 65           | 10.67                       | 0.090    | 0.14          | 0.75      | 85                             | 825               | 48   | 11 620              | 1 634.6                    | 1967         | 83 12 - GPP                    |
| 81           | 20.91                       | 0.093    | 0.10          | 0.73      | 94                             | 825               | 61   | 11 710              | 1 658.1                    | 1968         | 76 02 - GPP                    |
| 65           | 4.27                        | 0.090    | 0.19          | 0.76      | 103                            | 839               | 66   | 11 790              | 1 702.9                    | 1974         | 75 11 - GPP                    |
| 64           | 4.00                        | 0.065    | 0.26          | 0.76      | 99                             | 847               | 74   | 14 148              | 1 659.2                    | 1984         | 85 06                          |
| 128          | 2.93                        | 0.150    | 0.10          | 0.70      | 133                            | 829               | 59   | 14 970              | 1 525.3                    | 1971         | 79 07 - GPP                    |
| 64           | 2.78                        | 0.097    | 0.20          | 0.80      | 65                             | 805               | 58   | 9 766               | 1 606.7                    | 1983         | 83 11                          |
| 213          | 1.55                        | 0.180    | 0.25          | 0.92      | 36                             | 876               | 36   | 5 860               | 853.7                      | 1952         | 83 12 - GPP                    |
| 16           | 1.83                        | 0.190    | 0.25          | 0.89      | 30                             | 876               | 43   | 6 900               | 1 070.5                    | 1963         | 68 03 - ABAND 66 06            |
| 16           | 3.20                        | 0.090    | 0.12          | 0.80      | 55                             | 946               | 44   | 11 350              | 1 458.3                    | 1984         | 85 02 - SUSP 85 01             |
| 64           | 6.70                        | 0.156    | 0.25          | 0.88      | 43                             | 855               | 28   | 7 960               | 1 146.4                    | 1974         | 79 12                          |
| 64           | 12.20                       | 0.200    | 0.40          | 0.90      | 37                             | 855               | 39   | 8 203               | 1 152.9                    | 1983         | 84 02                          |
| 64           | 3.40                        | 0.150    | 0.40          | 0.88      | 51                             | 855               | 35   | 6 664               | 1 163.5                    | 1975         | 79 09 - GPP                    |
| 64           | 1.80                        | 0.220    | 0.27          | 0.88      | 53                             | 844               | 40   | 7 983               | 1 155.8                    | 1977         | 83 12                          |
| 64           | 7.92                        | 0.154    | 0.30          | 0.88      | 45                             | 865               | 40   | 7 164               | 1 141.7                    | 1978         | 85 12                          |
| 97           | 12.44                       | 0.068    | 0.18          | 0.59      | 205                            | 825               | 90   | 27 790              | 2 660.9                    | 1954         | 76 12 - GPP                    |
| 9 984        | 1.65                        | 0.100    | 0.10          | 0.76      | 109                            | 825               | 54   | 25 326              | 2 244.7                    | 1961         | 85 09                          |
| 640          | 2.22                        | 0.103    | 0.10          | 0.76      | 110                            | 834               | 52   | 15 500              | 2 204.7                    | 1983         | 85 09                          |
| 64           | 2.00                        | 0.100    | 0.45          | 0.81      | 119                            | 834               | 68   | 25 100              | 2 103.8                    | 1983         | 84 11                          |
| 128          | 4.00                        | 0.100    | 0.10          | 0.76      | 110                            | 834               | 52   | 15 500              | 2 204.7                    | 1983         | 85 09                          |
| 64           | 1.32                        | 0.062    | 0.10          | 0.76      | 110                            | 834               | 52   | 15 500              | 2 204.7                    | 1983         | 85 09                          |
| 275          | 2.69                        | 0.070    | 0.22          | 0.62      | 155                            | 825               | 71   | 22 370              | 2 373.5                    | 1965         | 82 05 - GPP                    |
| 1 616        | 3.96                        | 0.080    | 0.15          | 0.54      | 237                            | 806               | 82   | 22 820              | 2 441.8                    | 1963         | 82 12 - GPP                    |
| 64           | 2.44                        | 0.150    | 0.50          | 0.90      | 39                             | 829               | 38   | 13 410              | 1 412.4                    | 1977         | 83 12 - SUSP 81 08             |
| 65           | 4.27                        | 0.200    | 0.40          | 0.80      | 83                             | 860               | 43   | 13 510              | 1 451.5                    | 1974         | 82 12                          |
| 65           | 2.44                        | 0.160    | 0.60          | 0.81      | 84                             | 876               | 48   | 13 950              | 1 548.0                    | 1976         | 79 08 - SUSP 78 11             |
| 64           | 4.50                        | 0.140    | 0.50          | 0.80      | 95                             | 860               | 43   | 13 500              | 1 484.3                    | 1982         | 82 07 - ABAND 84 07            |
| 64           | 2.00                        | 0.170    | 0.30          | 0.83      | 80                             | 848               | 43   | 13 568              | 1 505.7                    | 1983         | 83 11                          |
| 64           | 3.00                        | 0.180    | 0.38          | 0.85      | 60                             | 900               | 39   | 12 647              | 1 415.2                    | 1982         | 82 09                          |
| 64           | 3.00                        | 0.190    | 0.19          | 0.80      | 96                             | 846               | 38   | 11 472              | 1 404.0                    | 1982         | 82 09                          |
| 128          | 3.87                        | 0.160    | 0.25          | 0.80      | 94                             | 834               | 46   | 11 637              | 1 414.4                    | 1982         | 82 09                          |
| 64           | 2.40                        | 0.130    | 0.22          | 0.80      | 94                             | 834               | 46   | 12 140              | 1 482.0                    | 1983         | 83 06                          |
| 64           | 1.10                        | 0.160    | 0.32          | 0.80      | 94                             | 834               | 46   | 10 554              | 1 504.4                    | 1983         | 84 06                          |
| 64           | 2.00                        | 0.150    | 0.28          | 0.80      | 94                             | 834               | 46   | 7 553               | 1 506.5                    | 1984         | 84 10                          |
| 64           | 2.30                        | 0.150    | 0.33          | 0.80      | 94                             | 854               | 46   | 10 332              | 1 470.2                    | 1982         | 84 12                          |
| 1 792<br>512 | 10.24                       | 0.070    | 0.33          | 0.87      | 24                             | 820               | 48   | 15 130              | 1 415.2                    | 1966         | 85 11                          |

TABLE 2-4

| FIELD<br>POOL                            | 1   | 3                   |                      | 4   | 5  | 6   | 7  | 8  |
|--|---|---------------------|----------------------|---|--|---|--|--|
|  | INITIAL<br>VOLUME<br>IN PLACE<br><br>10 <sup>3</sup> m <sup>3</sup> | RECOVERY            |                      | INITIAL ESTABLISHED RESERVES                  |  |   | CUMULATIVE<br>PRODUCTION<br><br>10 <sup>3</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br><br>10 <sup>3</sup> m <sup>3</sup> |
|  |   | PRIMARY<br><br>frac | ENHANCED<br><br>frac | PRIMARY<br><br>10 <sup>3</sup> m <sup>3</sup> | ENHANCED<br><br>10 <sup>3</sup> m <sup>3</sup> | TOTAL<br><br>10 <sup>3</sup> m <sup>3</sup> |  |  |
| LOON 085-09W5<br>(CONTINUED)             |   |                     |                      |   |  |   |  |  |
| WATER FLOOD AREA                         | 3 290.0   | 0.03                | 0.04                 | 98.7  | 131.0  | 230.0                                       |  |  |
| SLAVE POINT C                            | 429.0   | 0.10                |                      | 42.9  |  | 42.9  | 1.4  | 41.5   |
| SLAVE POINT D                            | 78.8  | 0.05                |                      | 3.9   |  | 3.9   | 0.7  | 3.2  |
| GRANITE WASH A                           | 630.0   | 0.25                |                      | 158.0   |  | 158.0                                       | 120.3  | 37.7   |
| GRANITE WASH B                           | 800.0   | 0.20                |                      | 160.0   |  | 160.0                                       | 29.0   | 131.0  |
| LOUSANA 036-21W4<br>D-2                  | 413.0   | 0.33                |                      | 137.0   |  | 137.0                                       | 112.1  | 24.9   |
| LUBICON 087-10W5<br>GRANITE WASH A       | 787.0   | 0.10                |                      | 78.7  |  | 78.7  | 53.0   | 25.7   |
| MAJDRVILLE 018-19W4<br>LOWER MANNVILLE A | 160.0   | 0.05                |                      | 8.0   |  | 8.0   | 4.3  | 3.7  |
| MALMO 043-22W4<br>BLAIRMORE A            | 1 270.0   | 0.15                |                      | 191.0   |  | 191.0                                       | 182.1  | 8.9  |
| D-2 A                                    | 2 570.0   | 0.44                |                      | 1 130.0                                       |  | 1 130.0                                     | 1 114.6  | 15.4   |
| D-3 A                                    | 1 600.0   | 0.50                |                      | 800.0   |  | 800.0                                       | 744.5  | 55.5   |
| D-3 C                                    | 70.7  | <0.02               |                      | 0.8   |  | 0.8   | 0.8  |  |
| D-3 D                                    | 480.0   | <0.01               |                      | 1.0   |  | 1.0   | 1.0  |  |
| MANITO 042-20W4<br>GLAUCONITIC A         | 167.0   | 0.10                |                      | 16.7  |  | 16.7  | 1.5  | 15.2   |
| ELLERSLIE A,B,C&D                        | 653.0   | 0.01                |                      | 6.5   |  | 6.5   | 0.4  | 6.1  |
| MANOLA 059-02W5<br>LOWER MANNVILLE E     | 870.0   | 0.10                |                      | 87.0  |  | 87.0  |  | 87.0   |
| LOWER MANNVILLE F                        | 410.0   | 0.10                |                      | 41.0  |  | 41.0  |  | 41.0   |
| MANYBERRIES 005-05W4                     |   |                     |                      |   |  |   |  |  |
| SUNBURST A                               | 3 760.0   | 0.10                |                      | 376.0   |  | 376.0                                       | 306.0  | 70.0   |
| SUNBURST B                               | 1 320.0   | 0.15                |                      | 198.0   |  | 198.0                                       | 131.8  | 56.2   |
| SUNBURST C                               | 1 070.0   | 0.15                |                      | 161.0   |  | 161.0                                       | 113.5  | 47.5   |
| SUNBURST J                               | 281.0   | 0.10                |                      | 28.1  |  | 28.1  | 12.9   | 15.2   |
| SUNBURST L                               | 147.0   | <0.02               |                      | 2.4   |  | 2.4   | 2.4  |  |
| SUNBURST D                               | 928.0   | 0.10                |                      | 92.8  |  | 92.8  | 65.6   | 27.2   |
| SUNBURST Q                               | 3 290.0   | 0.15                |                      | 494.0   |  | 494.0                                       | 179.5  | 314.5  |
| SUNBURST U                               | 419.0   | 0.10                |                      | 41.9  |  | 41.9  | 16.1   | 25.8   |
| SUNBURST X                               | 633.0   | 0.10                |                      | 63.3  |  | 63.3  | 11.9   | 51.4   |
| SUNBURST Z                               | 201.0   | 0.15                |                      | 30.2  |  | 30.2  | 5.9  | 24.3   |
| SUNBURST AA                              | 288.0   | 0.10                |                      | 28.8  |  | 28.8  | 2.1  | 26.7   |
| SUNBURST BB                              | 75.0  | 0.10                |                      | 7.5   |  | 7.5   | 5.3  | 2.2  |
| SUNBURST CC                              | 90.5  | 0.10                |                      | 9.1   |  | 9.1   | 0.4  | 8.7  |
| SUNBURST DD                              | 918.0   | 0.10                |                      | 91.8  |  | 91.8  | 12.7   | 79.1   |
| SUNBURST EE                              | 86.2  | 0.10                |                      | 8.6   |  | 8.6   | 0.3  | 8.3  |
| SUNBURST FF                              | 522.0   | <0.01               |                      | 0.3   |  | 0.3   | 0.3  |  |
| SUNBURST GG                              | 125.0   | 0.10                |                      | 12.5  |  | 12.5  | 1.5  | 11.0   |
| SUNBURST HH                              | 195.0   | 0.15                |                      | 29.3  |  | 29.3  |  | 29.3   |
| SUNBURST II                              | 149.0   | 0.10                |                      | 14.9  |  | 14.9  | 2.3  | 12.6   |
| MAPLE GLEN 036-15W4<br>UPPER MANNVILLE E | 737.0   | 0.10                |                      | 73.7  |  | 73.7  | 1.6  | 72.1   |
| MARKERVILLE 036-02W5                     |   |                     |                      |   |  |   |  |  |
| VIKING A                                 | 100.0   | 0.20                |                      | 20.0  |  | 20.0  | 16.8   | 3.2  |
| VIKING B                                 | 105.0   | <0.01               |                      | 0.3   |  | 0.3   | 0.3  |  |
| PEKISKO B                                | 320.0   | <0.01               |                      | 0.4   |  | 0.4   | 0.4  |  |
| MARLBORD 055-19W5                        |   |                     |                      |   |  |   |  |  |
| GETHING A                                | 273.0   | <0.01               |                      | 1.2   |  | 1.2   | 1.2  |  |
| GETHING B                                | 165.0   | <0.01               |                      | 0.3   |  | 0.3   | 0.3  |  |
| MATZIWIN 023-14W4<br>GLAUCONITIC A       | 2 380.0   | 0.10                |                      | 238.0   |  | 238.0                                       | 17.4   | 220.6  |
| LOWER MANNVILLE D                        | 112.0   | 0.10                |                      | 11.2  |  | 11.2  | 1.7  | 9.5  |
| MCLEOD 054-15W5<br>CARDIUM A             | 213.0   | 0.15                |                      | 32.0  |  | 32.0  | 20.2   | 11.8   |



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 1 280 | 7.96                        | 0.053    | 0.30          | 0.87      |                                |                   |      |                     |                            |              | - GPP                          |
| 128   | 9.44                        | 0.060    | 0.32          | 0.87      | 44                             | 820               | 44   | 14 231              | 1 369.2                    | 1984         | 85 03                          |
| 64    | 4.50                        | 0.050    | 0.37          | 0.87      | 45                             | 820               | 44   | 13 883              | 1 372.7                    | 1980         | 85 03                          |
| 653   | 1.25                        | 0.127    | 0.30          | 0.87      | 51                             | 820               | 77   | 16 510              | 1 526.4                    | 1965         | 84 12 - GPP                    |
| 270   | 3.46                        | 0.160    | 0.37          | 0.85      | 55                             | 828               | 45   | 15 905              | 1 484.2                    | 1982         | 85 10                          |
| 203   | 4.08                        | 0.069    | 0.14          | 0.84      | 55                             | 839               | 70   | 14 580              | 1 787.7                    | 1960         | 63 10 - GPP                    |
| 290   | 2.13                        | 0.200    | 0.25          | 0.85      | 60                             | 834               | 44   | 15 890              | 1 447.8                    | 1963         | 73 12                          |
| 64    | 3.66                        | 0.160    | 0.50          | 0.85      | 66                             | 876               | 40   | 12 810              | 1 344.5                    | 1976         | 82 12 - SUSP 85 07             |
| 203   | 4.08                        | 0.252    | 0.24          | 0.80      | 78                             | 825               | 56   | 10 170              | 1 436.5                    | 1952         | 81 12                          |
| 573   | 15.30                       | 0.047    | 0.20          | 0.78      | 95                             | 834               | 57   | 11 510              | 1 544.1                    | 1952         | 83 12 - GPP                    |
| 220   | 15.54                       | 0.070    | 0.12          | 0.76      | 111                            | 834               | 58   | 14 860              | 1 609.6                    | 1952         | 83 12 - GPP                    |
| 65    | 2.44                        | 0.067    | 0.12          | 0.76      | 111                            | 829               | 56   | 14 860              | 1 630.4                    | 1965         | 73 02 - SUSP 69 08             |
| 64    | 16.90                       | 0.074    | 0.25          | 0.80      | 70                             | 886               | 50   | 12 493              | 1 640.9                    | 1979         | 84 12 - SUSP 84 07             |
| 64    | 2.80                        | 0.160    | 0.30          | 0.83      | 70                             | 850               | 41   | 9 039               | 1 265.6                    | 1980         | 81 02                          |
| 64    | 9.20                        | 0.190    | 0.27          | 0.80      | 47                             | 856               | 42   | 9 390               | 1 297.2                    | 1980         | 83 07                          |
| 192   | 4.90                        | 0.180    | 0.41          | 0.87      | 55                             | 891               | 37   | 10 050              | 1 072.8                    | 1985         | 85 12                          |
| 192   | 2.69                        | 0.180    | 0.49          | 0.87      | 55                             | 891               | 37   | 10 050              | 1 083.6                    | 1985         | 85 12                          |
| 970   | 2.92                        | 0.240    | 0.35          | 0.85      | 66                             | 834               | 36   | 9 000               | 1 122.4                    | 1962         | 81 12                          |
| 519   | 2.14                        | 0.200    | 0.30          | 0.85      | 71                             | 829               | 61   | 9 070               | 1 227.1                    | 1955         | 84 11                          |
| 566   | 1.38                        | 0.260    | 0.35          | 0.81      | 66                             | 839               | 34   | 8 990               | 1 119.2                    | 1967         | 84 12 - GPP                    |
| 183   | 1.12                        | 0.230    | 0.30          | 0.85      | 51                             | 883               | 37   | 8 960               | 1 158.2                    | 1963         | 84 03                          |
| 65    | 1.52                        | 0.270    | 0.35          | 0.85      | 53                             | 855               | 37   | 8 950               | 1 270.4                    | 1972         | 75 12 - SUSP 75 10             |
| 129   | 5.64                        | 0.220    | 0.32          | 0.85      | 71                             | 839               | 35   | 8 960               | 1 080.5                    | 1973         | 74 07                          |
| 884   | 4.13                        | 0.170    | 0.39          | 0.87      | 57                             | 838               | 32   | 9 143               | 1 079.5                    | 1977         | 84 03                          |
| 64    | 4.00                        | 0.250    | 0.23          | 0.85      | 66                             | 830               | 36   | 9 017               | 1 027.0                    | 1980         | 81 02                          |
| 64    | 7.20                        | 0.200    | 0.21          | 0.87      | 52                             | 838               | 33   | 6 613               | 1 091.1                    | 1984         | 84 05                          |
| 64    | 2.00                        | 0.270    | 0.33          | 0.87      | 53                             | 838               | 32   | 6 200               | 1 167.0                    | 1984         | 84 06                          |
| 64    | 6.50                        | 0.140    | 0.45          | 0.90      | 32                             | 824               | 40   | 9 625               | 1 216.5                    | 1984         | 84 11                          |
| 32    | 2.00                        | 0.230    | 0.40          | 0.85      | 32                             | 842               | 33   | 5 516               | 1 171.5                    | 1984         | 84 11                          |
| 32    | 2.10                        | 0.220    | 0.28          | 0.85      | 32                             | 824               | 33   | 8 729               | 1 145.0                    | 1971         | 84 11                          |
| 64    | 11.93                       | 0.192    | 0.28          | 0.87      | 32                             | 824               | 33   | 5 516               | 1 101.2                    | 1984         | 84 11                          |
| 32    | 3.30                        | 0.160    | 0.40          | 0.85      | 32                             | 824               | 33   | 5 516               | 1 131.4                    | 1984         | 84 11 - SUSP 85 03             |
| 128   | 1.03                        | 0.640    | 0.27          | 0.85      | 60                             | 838               | 33   | 6 900               | 1 091.0                    | 1984         | 85 12 - SUSP 85 04             |
| 64    | 3.10                        | 0.135    | 0.45          | 0.85      | 47                             | 832               | 37   | 5 700               | 1 108.5                    | 1984         | 85 10                          |
| 64    | 3.52                        | 0.175    | 0.43          | 0.87      | 50                             | 837               | 34   | 6 000               | 1 079.2                    | 1984         | 85 11                          |
| 64    | 2.00                        | 0.195    | 0.38          | 0.96      | 14                             | 837               | 35   | 2 000               | 1 064.1                    | 1984         | 85 11                          |
| 96    | 7.08                        | 0.200    | 0.37          | 0.86      | 55                             | 874               | 38   | 6 260               | 1 150.8                    | 1984         | 85 10                          |
| 167   | 1.84                        | 0.070    | 0.38          | 0.75      | 102                            | 833               | 66   | 12 810              | 1 902.6                    | 1977         | 85 04 - GPP                    |
| 64    | 3.10                        | 0.120    | 0.41          | 0.75      | 95                             | 852               | 63   | 9 620               | 1 905.3                    | 1977         | 83 12 - ABAND 82 10            |
| 64    | 19.80                       | 0.050    | 0.36          | 0.79      | 79                             | 879               | 74   | 14 701              | 2 217.3                    | 1980         | 81 08 - ABAND 83 04            |
| 65    | 7.32                        | 0.120    | 0.20          | 0.60      | 239                            | 825               | 97   | 35 120              | 2 802.0                    | 1969         | 74 05 - ABAND 70 09            |
| 65    | 4.27                        | 0.120    | 0.17          | 0.60      | 239                            | 820               | 68   | 34 870              | 2 765.5                    | 1970         | 73 02 - SUSP 71 06             |
| 320   | 8.37                        | 0.190    | 0.45          | 0.85      | 68                             | 883               | 32   | 9 727               | 998.1                      | 1983         | 85 07                          |
| 64    | 1.70                        | 0.190    | 0.36          | 0.85      | 62                             | 887               | 32   | 9 319               | 1 013.2                    | 1983         | 84 02                          |
| 72    | 5.02                        | 0.100    | 0.30          | 0.84      | 62                             | 834               | 53   | 9 060               | 1 497.2                    | 1976         | 84 12 - GPP                    |



TABLE 2-4

| FIELD<br>POOL                   | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                 | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                 |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                 | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| MEDICINE RIVER<br>039-03W5      |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                       | 82.6                           | 0.02     |          | 1.7                            |                                | 1.7                            | 0.3                            | 1.4                                  |
| CARDIUM B                       | 154.0                          | 0.08     |          | 12.3                           |                                | 12.3                           | 1.5                            | 10.8                                 |
| VIKING A                        | 63.6                           | <0.06    |          | 3.5                            |                                | 3.5                            | 3.5                            |                                      |
| VIKING D                        | 1 850.0                        | 0.15     |          | 278.0                          |                                | 278.0                          | 238.8                          | 39.2                                 |
| VIKING F                        | 33.2                           | 0.20     |          | 6.6                            |                                | 6.6                            | 5.7                            | 0.9                                  |
| VIKING L                        | 68.5                           | 0.15     |          | 10.3                           |                                | 10.3                           | 4.5                            | 5.8                                  |
| VIKING M                        | 195.0                          | 0.10     |          | 19.5                           |                                | 19.5                           | 12.9                           | 6.6                                  |
| VIKING N                        | 62.7                           | 0.10     |          | 6.3                            |                                | 6.3                            | 1.5                            | 4.8                                  |
| GLAUCONITIC A TOTAL             | 11 600.0                       |          |          | 1 160.0                        | 945.0                          | 2 110.0                        | 1 505.1                        | 604.9                                |
| PRIMARY AREA                    | 2 150.0                        | 0.10     |          | 215.0                          |                                | 215.0                          |                                |                                      |
| WATER FLOOD AREA                | 9 450.0                        | 0.10     | 0.10     | 945.0                          | 945.0                          | 1 890.0                        |                                |                                      |
| GLAUCONITIC H                   | 228.0                          | 0.10     |          | 22.8                           |                                | 22.8                           | 0.5                            | 22.3                                 |
| GLAUC D & OSTRACOD A<br>TOTAL   | 1 990.0                        |          |          | 308.0                          | 213.0                          | 521.0                          | 316.2                          | 204.8                                |
| PRIMARY AREA                    | 878.0                          | 0.15     |          | 132.0                          |                                | 132.0                          |                                |                                      |
| WATER FLOOD AREA                | 1 110.0                        | 0.16     | 0.19     | 176.0                          | 213.0                          | 389.0                          |                                |                                      |
| OSTRACOD B                      | 461.0                          | 0.20     |          | 92.2                           |                                | 92.2                           | 53.7                           | 38.5                                 |
| OSTRACOD C                      | 583.0                          | 0.15     |          | 87.4                           |                                | 87.4                           | 78.9                           | 8.5                                  |
| OSTRACOD H                      | 94.7                           | 0.04     |          | 3.8                            |                                | 3.8                            | 3.8                            |                                      |
| OSTRACOD P                      | 470.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| OSTRACOD R                      | 63.6                           | <0.03    |          | 1.4                            |                                | 1.4                            | 1.4                            |                                      |
| OSTRACOD S                      | 111.0                          | 0.10     |          | 11.1                           |                                | 11.1                           | 9.8                            | 1.3                                  |
| OSTRACOD W                      | 364.0                          | 0.20     |          | 72.8                           |                                | 72.8                           | 43.9                           | 28.9                                 |
| OSTRACOD Y                      | 53.7                           | 0.10     |          | 5.4                            |                                | 5.4                            | 0.5                            | 4.9                                  |
| BASAL QUARTZ B TOTAL            | 5 750.0                        |          |          | 575.0                          | 74.5                           | 650.0                          | 394.7                          | 255.3                                |
| PRIMARY AREA                    | 4 260.0                        | 0.10     |          | 426.0                          |                                | 426.0                          |                                |                                      |
| WATER FLOOD AREA                | 1 490.0                        | 0.10     | 0.05     | 149.0                          | 74.5                           | 224.0                          |                                |                                      |
| BASAL QUARTZ C                  | 65.5                           | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| BASAL QUARTZ D                  | 393.0                          | <0.05    |          | 18.7                           |                                | 18.7                           | 18.7                           |                                      |
| BASAL QUARTZ F                  | 138.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| BASAL QUARTZ G                  | 566.0                          | <0.04    | 0.04     | 21.6                           | 22.6                           | 44.2                           | 44.2                           |                                      |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ H                  | 159.0                          | 0.10     |          | 15.9                           |                                | 15.9                           | 13.2                           | 2.7                                  |
| BASAL QUARTZ I                  | 262.0                          | 0.13     |          | 34.0                           |                                | 34.0                           | 28.6                           | 5.4                                  |
| BASAL QUARTZ J                  | 556.0                          | 0.05     |          | 27.8                           |                                | 27.8                           | 20.2                           | 7.6                                  |
| BASAL QUARTZ K                  | 132.0                          | 0.15     |          | 19.8                           |                                | 19.8                           | 16.2                           | 3.6                                  |
| BASAL QUARTZ Y                  | 199.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| JURASSIC A                      | 5 150.0                        | 0.16     | 0.19     | 823.0                          | 979.0                          | 1 800.0                        | 1 616.6                        | 183.4                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| JURASSIC B                      | 1 160.0                        | 0.12     |          | 139.0                          |                                | 139.0                          | 116.0                          | 23.0                                 |
| JURASSIC C TOTAL                | 9 090.0                        |          |          | 1 090.0                        | 2 020.0                        | 3 100.0                        | 1 385.0                        | 1 715.0                              |
| PRIMARY AREA                    | 318.0                          | 0.12     |          | 38.2                           |                                | 38.2                           |                                |                                      |
| WATER FLOOD AREA                | 8 770.0                        | 0.12     | 0.23     | 1 050.0                        | 2 020.0                        | 3 070.0                        |                                |                                      |
| JURASSIC D                      | 8 140.0                        | 0.17     | 0.21     | 1 380.0                        | 1 700.0                        | 3 080.0                        | 1 515.6                        | 1 564.4                              |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| JURASSIC E                      | 281.0                          | 0.15     |          | 42.2                           |                                | 42.2                           | 32.7                           | 9.5                                  |
| JURASSIC K                      | 721.0                          | 0.12     |          | 86.5                           |                                | 86.5                           | 56.9                           | 29.6                                 |
| JURASSIC L                      | 128.0                          | 0.03     |          | 3.8                            |                                | 3.8                            | 2.2                            | 1.6                                  |
| JURASSIC N                      | 62.1                           | 0.10     |          | 6.2                            |                                | 6.2                            | 0.3                            | 5.9                                  |
| ELKTON-SHUNDA A                 | 318.0                          | <0.04    |          | 12.0                           |                                | 12.0                           | 12.0                           |                                      |
| ELKTON-SHUNDA C                 | 520.0                          | 0.10     |          | 52.0                           |                                | 52.0                           | 33.8                           | 18.2                                 |
| SHUNDA A                        | 221.0                          | <0.01    |          | 1.8                            |                                | 1.8                            | 1.8                            |                                      |
| PEKISKD B                       | 869.0                          | 0.15     | 0.05     | 130.0                          | 43.5                           | 174.0                          | 121.8                          | 52.2                                 |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| PEKISKD C TOTAL                 | 2 180.0                        |          |          | 71.7                           | 64.5                           | 136.0                          |                                |                                      |
| PRIMARY AREA                    | 885.0                          | <0.01    |          | 7.2                            |                                | 7.2                            | 102.7                          | 33.3                                 |
| WATER FLOOD AREA                | 1 290.0                        | 0.05     | 0.05     | 64.5                           | 64.5                           | 129.0                          |                                |                                      |
| PEKISKD D                       | 91.2                           | 0.10     |          | 9.1                            |                                | 9.1                            | 6.3                            | 2.8                                  |
| PEKISKD E TOTAL                 | 3 380.0                        |          |          | 338.0                          | 453.0                          | 791.0                          | 486.4                          | 304.6                                |
| PRIMARY AREA                    | 365.0                          | 0.10     |          | 36.5                           |                                | 36.5                           |                                |                                      |
| WATER FLOOD AREA                | 3 020.0                        | 0.10     | 0.15     | 302.0                          | 453.0                          | 755.0                          |                                |                                      |
| PEKISKD G                       | 184.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| PEKISKD H                       | 238.0                          | <0.02    |          | 2.7                            |                                | 2.7                            | 2.7                            |                                      |
| PEKISKD I                       | 6 360.0                        | 0.21     |          | 1 330.0                        |                                | 1 330.0                        | 800.6                          | 529.4                                |
| PEKISKD K                       | 180.0                          | 0.10     |          | 18.0                           |                                | 18.0                           | 16.3                           | 1.7                                  |
| PEKISKD N                       | 5 000.0                        | 0.15     |          | 750.0                          |                                | 750.0                          | 200.8                          | 549.2                                |
| PEKISKD R                       | 1 320.0                        | 0.15     |          | 197.0                          |                                | 197.0                          | 106.7                          | 90.3                                 |
| PEKISKD S                       | 244.0                          | 0.15     |          | 36.6                           |                                | 36.6                           | 4.1                            | 32.5                                 |
| MEEKWAP 066-15W5<br>D-2 A TOTAL | 9 700.0                        |          |          | 1 940.0                        | 2 260.0                        | 4 200.0                        | 2 863.3                        | 1 336.7                              |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 1.52                        | 0.124    | 0.10          | 0.75      | 106                            | 898               | 49   | 19 240              | 1 658.4                    | 1963         | 84 12                          |
| 65    | 2.44                        | 0.160    | 0.09          | 0.67      | 167                            | 898               | 62   | 20 990              | 1 848.0                    | 1965         | 85 07                          |
| 130   | 1.07                        | 0.100    | 0.32          | 0.67      | 160                            | 844               | 91   | 20 000              | 1 931.8                    | 1963         | 71 05 - SUSP 68 06             |
| 2 570 | 1.03                        | 0.128    | 0.27          | 0.75      | 130                            | 813               | 52   | 14 639              | 1 875.8                    | 1981         | 84 12                          |
| 64    | 0.99                        | 0.136    | 0.45          | 0.70      | 140                            | 793               | 61   | 15 041              | 1 915.8                    | 1982         | 85 12                          |
| 64    | 1.20                        | 0.170    | 0.25          | 0.70      | 140                            | 786               | 62   | 14 907              | 1 897.7                    | 1962         | 84 10                          |
| 192   | 2.09                        | 0.090    | 0.24          | 0.76      | 110                            | 814               | 65   | 13 996              | 1 820.9                    | 1984         | 85 08                          |
| 64    | 2.00                        | 0.100    | 0.30          | 0.70      | 130                            | 813               | 52   | 14 857              | 1 888.3                    | 1984         | 85 04                          |
| 4 276 |                             |          |               |           | 244                            | 839               | 64   | 26 270              | 2 268.9                    | 1964         | 83 03                          |
| 768   | 4.35                        | 0.130    | 0.25          | 0.66      |                                |                   |      |                     |                            |              |                                |
| 3 508 | 4.19                        | 0.130    | 0.25          | 0.66      |                                |                   |      |                     |                            |              |                                |
| 64    | 7.00                        | 0.100    | 0.25          | 0.68      | 159                            | 840               | 73   | 14 878              | 2 054.3                    | 1979         | 83 11                          |
| 1 277 |                             |          |               |           | 101                            | 887               | 67   | 26 200              | 2 080.8                    | 1963         | 82 01                          |
| 700   | 1.31                        | 0.160    | 0.20          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 577   | 2.29                        | 0.140    | 0.20          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 360   | 1.83                        | 0.130    | 0.22          | 0.69      | 148                            | 849               | 68   | 19 370              | 2 182.5                    | 1963         | 85 04                          |
| 117   | 5.30                        | 0.171    | 0.20          | 0.69      | 153                            | 839               | 72   | 20 170              | 2 298.2                    | 1964         | 77 12 - GPP                    |
| 65    | 2.44                        | 0.100    | 0.20          | 0.75      | 119                            | 860               | 72   | 20 270              | 2 319.5                    | 1965         | 73 12 - ABAND 73 08            |
| 65    | 10.97                       | 0.120    | 0.20          | 0.69      | 155                            | 855               | 59   | 16 150              | 2 206.1                    | 1972         | 74 06 - ABAND 73 09            |
| 65    | 1.52                        | 0.120    | 0.25          | 0.72      | 133                            | 870               | 68   | 17 440              | 2 283.3                    | 1974         | 76 12 - ABAND 75 06            |
| 98    | 1.83                        | 0.110    | 0.25          | 0.75      | 110                            | 849               | 57   | 19 410              | 2 166.8                    | 1974         | 77 12                          |
| 150   | 3.11                        | 0.130    | 0.20          | 0.75      | 119                            | 860               | 71   | 20 170              | 2 281.4                    | 1965         | 85 12 - GPP                    |
| 64    | 1.70                        | 0.100    | 0.35          | 0.76      | 110                            | 877               | 57   | 17 078              | 2 053.5                    | 1983         | 84 05 - GPP                    |
| 1 352 |                             |          |               |           | 88                             | 892               | 64   | 16 270              | 2 147.9                    | 1959         | 82 12                          |
| 998   | 5.15                        | 0.138    | 0.24          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 354   | 4.94                        | 0.140    | 0.23          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 32    | 2.44                        | 0.140    | 0.24          | 0.78      | 74                             | 892               | 66   | 15 690              | 2 130.2                    | 1962         | 65 01 - ABAND 63 08            |
| 129   | 2.99                        | 0.167    | 0.24          | 0.80      | 74                             | 892               | 68   | 15 510              | 2 099.5                    | 1963         | 83 12 - ABAND 83 12            |
| 64    | 1.83                        | 0.200    | 0.25          | 0.78      | 76                             | 898               | 68   | 16 480              | 2 158.9                    | 1963         | 64 12 - ABAND 66 10            |
| 65    | 11.22                       | 0.130    | 0.25          | 0.80      | 74                             | 910               | 66   | 15 580              | 2 140.0                    | 1963         | 83 12 - SUSP 82 03             |
| 32    | 6.40                        | 0.130    | 0.25          | 0.79      | 76                             | 898               | 66   | 16 270              | 2 178.4                    | 1963         | 63 10 - GPP                    |
| 64    | 5.22                        | 0.140    | 0.30          | 0.80      | 78                             | 898               | 66   | 16 550              | 2 225.0                    | 1962         | 81 12 - GPP                    |
| 64    | 10.47                       | 0.140    | 0.25          | 0.79      | 89                             | 898               | 66   | 17 000              | 2 217.7                    | 1971         | 81 12 - GPP                    |
| 121   | 1.52                        | 0.130    | 0.30          | 0.79      | 76                             | 892               | 68   | 18 400              | 2 172.6                    | 1965         | 81 12 - GPP                    |
| 65    | 5.18                        | 0.096    | 0.22          | 0.79      | 87                             | 898               | 66   | 16 130              | 2 239.4                    | 1974         | 75 11 - SUSP 75 09             |
| 1 289 | 4.69                        | 0.142    | 0.25          | 0.80      | 90                             | 887               | 63   | 16 000              | 2 153.1                    | 1956         | 75 08                          |
| 303   | 5.03                        | 0.132    | 0.27          | 0.79      | 88                             | 887               | 69   | 16 000              | 2 135.4                    | 1961         | 64 04 - GPP                    |
| 1 699 |                             |          |               |           | 84                             | 892               | 63   | 16 410              | 2 182.4                    | 1961         | 76 01                          |
| 141   | 2.50                        | 0.152    | 0.25          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 1 558 | 6.25                        | 0.152    | 0.25          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 689   | 14.11                       | 0.145    | 0.25          | 0.77      | 83                             | 887               | 68   | 16 200              | 2 141.2                    | 1962         | 76 09 - GPP                    |
| 64    | 7.01                        | 0.110    | 0.25          | 0.76      | 94                             | 887               | 70   | 16 790              | 2 197.9                    | 1962         | 83 12 - GPP                    |
| 160   | 5.85                        | 0.130    | 0.25          | 0.79      | 86                             | 892               | 66   | 19 030              | 2 175.1                    | 1974         | 85 12                          |
| 64    | 3.00                        | 0.110    | 0.17          | 0.73      | 130                            | 803               | 99   | 15 472              | 2 148.8                    | 1980         | 81 11 - GPP                    |
| 64    | 2.40                        | 0.070    | 0.25          | 0.77      | 105                            | 888               | 69   | 12 397              | 2 146.7                    | 1980         | 83 05                          |
| 64    | 7.21                        | 0.100    | 0.18          | 0.84      | 75                             | 915               | 71   | 17 000              | 2 248.2                    | 1962         | 83 12 - SUSP 77 08             |
| 65    | 12.50                       | 0.098    | 0.20          | 0.82      | 77                             | 876               | 49   | 18 330              | 2 328.4                    | 1974         | 75 05                          |
| 65    | 5.18                        | 0.110    | 0.20          | 0.75      | 121                            | 910               | 77   | 18 640              | 2 290.0                    | 1972         | 74 12 - SUSP 74 10             |
| 196   | 5.61                        | 0.119    | 0.16          | 0.79      | 62                             | 898               | 70   | 16 340              | 2 161.9                    | 1959         | 84 12 - GPP                    |
| 362   |                             |          |               |           | 62                             | 898               | 69   | 16 200              | 2 156.2                    | 1961         | 83 12 - GPP                    |
| 128   | 15.79                       | 0.072    | 0.22          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 234   | 12.55                       | 0.072    | 0.22          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 32    | 4.88                        | 0.087    | 0.15          | 0.79      | 62                             | 898               | 68   | 16 070              | 2 152.2                    | 1961         | 82 12 - GPP                    |
| 622   |                             |          |               |           | 75                             | 887               | 71   | 16 240              | 2 194.0                    | 1963         | 75 04                          |
| 32    | 13.11                       | 0.130    | 0.17          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 590   | 7.86                        | 0.098    | 0.17          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 64    | 7.62                        | 0.060    | 0.29          | 0.88      | 44                             | 972               | 70   | 14 580              | 2 155.5                    | 1964         | 64 12 - ABAND 71 10            |
| 65    | 13.78                       | 0.050    | 0.34          | 0.81      | 62                             | 904               | 71   | 16 030              | 2 144.6                    | 1964         | 68 03 - ABAND 70 09            |
| 928   | 10.45                       | 0.100    | 0.18          | 0.80      | 88                             | 898               | 71   | 16 890              | 2 207.7                    | 1954         | 77 12 - GPP                    |
| 65    | 7.89                        | 0.053    | 0.18          | 0.81      | 62                             | 898               | 71   | 16 240              | 2 188.5                    | 1965         | 77 12 - GPP                    |
| 1 002 | 8.00                        | 0.100    | 0.22          | 0.80      | 74                             | 844               | 82   | 16 320              | 2 139.3                    | 1963         | 82 06                          |
| 264   | 6.61                        | 0.110    | 0.15          | 0.81      | 74                             | 892               | 73   | 16 480              | 2 147.9                    | 1973         | 78 06                          |
| 32    | 7.00                        | 0.160    | 0.16          | 0.81      | 76                             | 896               | 69   | 16 236              | 2 197.9                    | 1982         | 84 12                          |
| 2 210 |                             |          |               |           | 120                            | 844               | 80   | 20 770              | 2 347.0                    | 1966         | 82 12                          |



TABLE 2-4

| FIELD<br>POOL                           | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>MEEKWAP 066-15W5<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                            | 300.0                          | 0.20     |          | 60.0                           |                                | 60.0                           |                                |                                      |
| WATER FLOOD AREA                        | 9 400.0                        | 0.20     | 0.24     | 1 880.0                        | 2 260.0                        | 4 140.0                        |                                |                                      |
| D-2 B                                   | 175.0                          | 0.30     |          | 52.5                           |                                | 52.5                           | 24.6                           | 27.9                                 |
| D-2 C                                   | 96.3                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| D-2 D                                   | 334.0                          | 0.10     |          | 33.4                           |                                | 33.4                           | 23.0                           | 10.4                                 |
| D-2 E                                   | 178.0                          | 0.10     |          | 17.8                           |                                | 17.8                           | 1.4                            | 16.4                                 |
| D-2 F                                   | 432.0                          | 0.20     |          | 86.4                           |                                | 86.4                           | 13.0                           | 73.4                                 |
| <b>MELLOWDALE 060-03W5</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE B                       | 1 470.0                        | 0.10     |          | 147.0                          |                                | 147.0                          | 19.0                           | 128.0                                |
| <b>MICHICHI 031-17W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                       | 126.0                          | 0.03     |          | 3.8                            |                                | 3.8                            | 0.6                            | 3.2                                  |
| LOWER MANNVILLE A                       | 499.0                          | 0.10     |          | 49.9                           |                                | 49.9                           | 10.9                           | 39.0                                 |
| LOWER MANNVILLE B                       | 304.0                          | 0.10     |          | 30.4                           |                                | 30.4                           | 1.8                            | 28.6                                 |
| BANFF A                                 | 1 610.0                        | 0.20     |          | 322.0                          |                                | 322.0                          | 19.6                           | 302.4                                |
| <b>MIKWAN 037-23W4</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING C                                | 65.9                           | 0.10     |          | 6.6                            |                                | 6.6                            | 0.9                            | 5.7                                  |
| VIKING D                                | 17.3                           | 0.10     |          | 1.7                            |                                | 1.7                            | 0.8                            | 0.9                                  |
| UPPER MANNVILLE F                       | 1 340.0                        | 0.01     |          | 13.4                           |                                | 13.4                           | 4.1                            | 9.3                                  |
| UPPER MANNVILLE G                       | 193.0                          | 0.10     |          | 19.3                           |                                | 19.3                           | 2.9                            | 16.4                                 |
| UPPER MANNVILLE H                       | 341.0                          | 0.10     |          | 34.1                           |                                | 34.1                           | 9.9                            | 24.2                                 |
| LOWER MANNVILLE H                       | 63.5                           | 0.10     |          | 6.4                            |                                | 6.4                            | 2.4                            | 4.0                                  |
| LOWER MANNVILLE J                       | 698.0                          | 0.10     |          | 69.8                           |                                | 69.8                           | 7.6                            | 62.2                                 |
| D-2 A                                   | 544.0                          | 0.20     |          | 109.0                          |                                | 109.0                          | 63.7                           | 45.3                                 |
| D-2 B                                   | 553.0                          | 0.20     |          | 111.0                          |                                | 111.0                          | 44.6                           | 66.4                                 |
| D-2 C                                   | 290.0                          | 0.10     |          | 29.0                           |                                | 29.0                           | 9.9                            | 19.1                                 |
| D-2 D                                   | 262.0                          | 0.20     |          | 52.4                           |                                | 52.4                           | 7.3                            | 45.1                                 |
| D-3 A                                   | 339.0                          | 0.04     |          | 13.6                           |                                | 13.6                           | 10.7                           | 2.9                                  |
| D-3 B                                   | 645.0                          | 0.20     |          | 129.0                          |                                | 129.0                          | 33.5                           | 95.5                                 |
| <b>MINEHEAD 048-18W5</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                               | 350.0                          | 0.15     |          | 52.5                           |                                | 52.5                           | 3.4                            | 49.1                                 |
| <b>MINNEHIK-BUCK LAKE<br/>045-05W5</b>  |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                           | 215.0                          | 0.10     |          | 21.5                           |                                | 21.5                           | 7.7                            | 13.8                                 |
| BELLY RIVER B                           | 238.0                          | 0.10     |          | 23.8                           |                                | 23.8                           | 4.8                            | 19.0                                 |
| BELLY RIVER C                           | 676.0                          | 0.15     |          | 101.0                          |                                | 101.0                          | 13.4                           | 87.6                                 |
| BELLY RIVER E                           | 250.0                          | 0.10     |          | 25.0                           |                                | 25.0                           | 6.0                            | 19.0                                 |
| BELLY RIVER F                           | 538.0                          | 0.10     |          | 53.8                           |                                | 53.8                           | 10.7                           | 43.1                                 |
| BELLY RIVER G                           | 704.0                          | 0.10     |          | 70.4                           |                                | 70.4                           | 2.8                            | 67.6                                 |
| BELLY RIVER J                           | 182.0                          | 0.10     |          | 18.2                           |                                | 18.2                           | 2.2                            | 16.0                                 |
| CARDIUM A                               | 181.0                          | 0.08     |          | 14.5                           |                                | 14.5                           | 10.5                           | 4.0                                  |
| CARDIUM E                               | 102.0                          | 0.10     |          | 10.2                           |                                | 10.2                           | 0.5                            | 9.7                                  |
| CARDIUM J                               | 5 490.0                        | 0.08     |          | 439.0                          |                                | 439.0                          | 83.6                           | 355.4                                |
| CARDIUM L                               | 699.0                          | 0.10     |          | 69.9                           |                                | 69.9                           | 10.8                           | 59.1                                 |
| CARDIUM N                               | 93.3                           | 0.10     |          | 9.3                            |                                | 9.3                            | 0.3                            | 9.0                                  |
| VIKING A                                | 265.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| VIKING C                                | 148.0                          | 0.10     |          | 14.8                           |                                | 14.8                           | 5.5                            | 9.3                                  |
| VIKING D                                | 124.0                          | 0.10     |          | 12.4                           |                                | 12.4                           | 0.6                            | 11.8                                 |
| VIKING E                                | 42.2                           | 0.10     |          | 4.2                            |                                | 4.2                            | 1.3                            | 2.9                                  |
| VIKING F                                | 10.4                           | 0.15     |          | 1.6                            |                                | 1.6                            |                                | 1.6                                  |
| DSTRACDD A                              | 618.0                          | 0.20     |          | 124.0                          |                                | 124.0                          | 49.5                           | 74.5                                 |
| DSTRACDD B                              | 66.7                           | 0.15     |          | 10.0                           |                                | 10.0                           | 4.6                            | 5.4                                  |
| DSTRACDD C                              | 66.7                           | 0.15     |          | 10.0                           |                                | 10.0                           | 5.3                            | 3.7                                  |
| DSTRACDD E & F                          | 136.0                          | 0.10     |          | 13.6                           |                                | 13.6                           | 0.9                            | 12.7                                 |
| D-2 A                                   | 277.0                          | <0.01    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| <b>MITSUE 071-04W5</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| GILWOOD A TOTAL                         | 122 000.0                      |          |          | 30 200.0                       | 28 300.0                       | 58 500.0                       | 40 254.7                       | 18 245.3                             |
| PRIMARY AREA                            | 7 130.0                        | <0.20    |          | 1 410.0                        |                                | 1 410.0                        |                                |                                      |
| SOLVENT FLOOD AREA                      | 30 000.0                       | 0.25     | 0.38     | 7 500.0                        | 11 400.0                       | 18 900.0                       |                                |                                      |
| WATER FLOOD AREA                        | 85 000.0                       | 0.25     | 0.20     | 21 300.0                       | 16 900.0                       | 38 200.0                       |                                |                                      |
| <b>MORINVILLE 055-25W4</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                       | 199.0                          | 0.12     |          | 23.8                           |                                | 23.8                           | 20.1                           | 3.7                                  |
| LOWER MANNVILLE F                       | 120.0                          | 0.10     |          | 12.0                           |                                | 12.0                           | 3.9                            | 8.1                                  |
| LOWER MANNVILLE L                       | 226.0                          | <0.03    |          | 6.7                            |                                | 6.7                            | 6.7                            |                                      |
| LOWER MANNVILLE O                       | 49.0                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 178    | 6.18                        | 0.046    | 0.20          | 0.74      |                                |                   |      |                     |                            |              |                                |
| 2 032  | 8.65                        | 0.085    | 0.15          | 0.74      |                                |                   |      |                     |                            |              |                                |
| 64     | 11.24                       | 0.038    | 0.20          | 0.80      |                                |                   |      | 19 944              | 2 325.3                    | 1971         | 75 12                          |
| 64     | 4.30                        | 0.054    | 0.20          | 0.81      | 66                             | 857               | 83   | 14 519              | 2 310.7                    | 1980         | 83 12 - SUSP 82 11             |
| 64     | 9.26                        | 0.087    | 0.20          | 0.81      |                                |                   |      | 15 018              | 2 312.2                    | 1971         | 83 12 - GPP                    |
| 64     | 7.10                        | 0.069    | 0.30          | 0.81      |                                |                   |      | 21 423              | 2 333.6                    | 1973         | 83 12                          |
| 128    | 9.31                        | 0.070    | 0.30          | 0.74      | 119                            | 845               | 80   | 15 017              | 2 369.9                    | 1982         | 84 04                          |
| 461    | 3.06                        | 0.200    | 0.40          | 0.87      | 45                             | 892               | 35   | 8 252               | 1 112.6                    | 1983         | 85 01                          |
| 64     | 2.00                        | 0.180    | 0.40          | 0.91      | 39                             | 866               | 32   | 9 501               | 1 288.0                    | 1981         | 83 12 - SUSP 85 05             |
| 128    | 3.21                        | 0.240    | 0.39          | 0.83      | 66                             | 859               | 42   | 9 502               | 1 354.4                    | 1982         | 84 02                          |
| 64     | 5.50                        | 0.160    | 0.35          | 0.83      | 64                             | 854               | 40   | 8 030               | 1 326.0                    | 1982         | 83 06                          |
| 576    | 11.78                       | 0.040    | 0.31          | 0.86      | 61                             | 854               | 40   | 8 500               | 1 330.9                    | 1985         | 85 12                          |
| 64     | 2.00                        | 0.090    | 0.35          | 0.88      | 44                             | 839               | 53   | 6 683               | 1 380.0                    | 1980         | 81 05 - GPP                    |
| 64     | 0.92                        | 0.070    | 0.50          | 0.84      | 69                             | 839               | 42   | 8 140               | 1 448.3                    | 1977         | 78 10                          |
| 128    | 7.34                        | 0.180    | 0.11          | 0.89      | 40                             | 892               | 50   | 8 428               | 1 648.4                    | 1979         | 82 04                          |
| 64     | 2.30                        | 0.220    | 0.30          | 0.85      | 59                             | 819               | 46   | 7 200               | 1 488.3                    | 1980         | 81 07                          |
| 128    | 2.63                        | 0.170    | 0.33          | 0.89      | 40                             | 901               | 43   | 9 183               | 1 473.3                    | 1980         | 83 04                          |
| 64     | 1.00                        | 0.170    | 0.27          | 0.80      | 110                            | 797               | 44   | 8 856               | 1 539.0                    | 1980         | 84 05 - GPP                    |
| 128    | 5.50                        | 0.150    | 0.26          | 0.90      | 35                             | 873               | 47   | 6 484               | 1 534.0                    | 1983         | 84 11 - GPP                    |
| 255    | 5.29                        | 0.080    | 0.31          | 0.73      | 124                            | 844               | 64   | 15 390              | 1 824.7                    | 1970         | 84 12                          |
| 128    | 8.63                        | 0.089    | 0.25          | 0.75      | 100                            | 833               | 64   | 14 018              | 1 788.7                    | 1979         | 82 05                          |
| 128    | 6.01                        | 0.067    | 0.25          | 0.75      | 110                            | 830               | 62   | 13 612              | 1 756.3                    | 1978         | 85 12                          |
| 64     | 7.30                        | 0.090    | 0.17          | 0.75      | 105                            | 822               | 47   | 13 281              | 1 757.7                    | 1983         | 84 12                          |
| 224    | 2.99                        | 0.090    | 0.25          | 0.75      | 106                            | 865               | 63   | 15 600              | 1 848.0                    | 1971         | 84 12 - GPP                    |
| 64     | 13.00                       | 0.120    | 0.15          | 0.76      | 100                            | 852               | 76   | 13 824              | 1 819.5                    | 1979         | 80 01                          |
| 64     | 6.70                        | 0.160    | 0.15          | 0.60      | 210                            | 816               | 74   | 23 500              | 2 562.8                    | 1968         | 85 06                          |
| 65     | 3.66                        | 0.160    | 0.32          | 0.83      | 74                             | 825               | 46   | 9 560               | 1 191.8                    | 1973         | 78 10                          |
| 64     | 5.60                        | 0.150    | 0.48          | 0.85      | 67                             | 845               | 46   | 8 941               | 1 205.7                    | 1980         | 81 07                          |
| 129    | 6.44                        | 0.140    | 0.30          | 0.83      | 74                             | 845               | 46   | 8 717               | 1 255.6                    | 1981         | 85 07                          |
| 64     | 5.00                        | 0.157    | 0.40          | 0.83      | 74                             | 844               | 50   | 7 377               | 1 176.0                    | 1981         | 82 08                          |
| 64     | 9.00                        | 0.150    | 0.25          | 0.83      | 65                             | 848               | 52   | 9 208               | 1 233.8                    | 1982         | 83 05                          |
| 64     | 13.00                       | 0.150    | 0.32          | 0.83      | 65                             | 848               | 52   | 9 315               | 1 178.2                    | 1983         | 83 10                          |
| 64     | 4.00                        | 0.130    | 0.34          | 0.83      | 65                             | 848               | 52   | 10 200              | 1 212.8                    | 1982         | 84 01 - GPP                    |
| 130    | 2.13                        | 0.110    | 0.15          | 0.70      | 96                             | 815               | 49   | 12 070              | 1 718.0                    | 1960         | 78 11 - GPP                    |
| 64     | 2.13                        | 0.120    | 0.20          | 0.78      | 96                             | 830               | 49   | 10 200              | 1 711.0                    | 1978         | 81 01                          |
| 3 250  | 2.13                        | 0.115    | 0.15          | 0.81      | 125                            | 830               | 56   | 16 595              | 1 559.5                    | 1979         | 84 12                          |
| 320    | 2.29                        | 0.140    | 0.18          | 0.83      | 65                             | 805               | 58   | 14 911              | 1 673.3                    | 1980         | 83 04 - GPP                    |
| 64     | 1.58                        | 0.134    | 0.15          | 0.81      | 74                             | 830               | 66   | 10 631              | 1 626.9                    | 1982         | 82 11                          |
| 65     | 4.88                        | 0.160    | 0.30          | 0.75      | 105                            |                   | 88   | 14 690              | 1 805.3                    | 1961         | 66 11 - SUSP 66 11             |
| 128    | 2.46                        | 0.080    | 0.30          | 0.84      | 156                            | 827               | 72   | 18 955              | 1 857.9                    | 1982         | 84 03                          |
| 64     | 4.00                        | 0.090    | 0.36          | 0.84      | 54                             | 827               | 72   | 6 956               | 1 771.3                    | 1982         | 83 06                          |
| 64     | 1.10                        | 0.100    | 0.25          | 0.80      | 149                            | 878               | 82   | 16 677              | 1 843.9                    | 1983         | 84 05                          |
| 64     | 0.10                        | 0.034    | 0.30          | 0.68      | 149                            | 825               | 83   | 18 685              | 1 898.2                    | 1984         | 85 06                          |
| 512    | 1.52                        | 0.140    | 0.19          | 0.70      | 160                            | 827               | 60   | 18 395              | 2 042.3                    | 1980         | 85 12                          |
| 121    | 1.50                        | 0.070    | 0.25          | 0.70      | 132                            | 817               | 72   | 18 296              | 2 058.6                    | 1981         | 83 12                          |
| 68     | 2.00                        | 0.100    | 0.30          | 0.70      | 150                            | 822               | 68   | 18 382              | 2 071.4                    | 1981         | 84 12                          |
| 64     | 3.58                        | 0.116    | 0.27          | 0.70      | 174                            | 812               | 80   | 18 168              | 2 139.9                    | 1984         | 85 11                          |
| 64     | 24.99                       | 0.043    | 0.35          | 0.61      | 195                            | 801               | 78   | 19 840              | 2 528.3                    | 1975         | 81 12 - SUSP 81 02             |
| 47 716 |                             |          |               |           | 103                            | 811               | 60   | 18 240              | 1 722.4                    | 1964         | 85 10                          |
| 2 841  | 4.19                        | 0.120    | 0.36          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 7 134  | 5.58                        | 0.151    | 0.36          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 37 741 | 3.44                        | 0.131    | 0.36          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 100    | 1.52                        | 0.220    | 0.30          | 0.85      | 41                             | 876               | 46   | 7 860               | 1 092.4                    | 1965         | 75 06 - SUSP 81 01             |
| 57     | 1.83                        | 0.170    | 0.25          | 0.90      | 62                             | 876               | 47   | 8 960               | 1 148.8                    | 1963         | 82 12 - GPP                    |
| 93     | 2.59                        | 0.220    | 0.52          | 0.89      | 50                             | 887               | 44   | 9 760               | 1 244.2                    | 1965         | 84 12 - SUSP 80 07             |
| 64     | 1.00                        | 0.170    | 0.50          | 0.90      | 33                             | 871               | 43   | 6 692               | 1 155.0                    | 1983         | 84 01 - ABAND 84 09            |

TABLE 2-4

| FIELD<br>POOL                      | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                    | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                    |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                    | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| MORINVILLE 055-25W4<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| D-1 A                              | 55.9                           | <0.13    |          | 7.2                            |                                | 7.2                            | 7.2                            |                                      |
| D-3 A                              | 90.6                           | <0.32    |          | 28.6                           |                                | 28.6                           | 28.6                           |                                      |
| D-3 B                              | 2 590.0                        | 0.59     |          | 1 530.0                        |                                | 1 530.0                        | 1 464.8                        | 65.2                                 |
| D-3 C                              | 615.0                          | 0.13     |          | 80.0                           |                                | 80.0                           | 57.3                           | 22.7                                 |
| D-3 D                              | 57.1                           | 0.30     |          | 17.1                           |                                | 17.1                           | 3.6                            | 13.5                                 |
| D-3 E                              | 980.0                          | 0.35     |          | 343.0                          |                                | 343.0                          | 36.5                           | 306.5                                |
| D-3 F                              | 212.0                          | <0.01    |          | 0.2                            |                                | 0.2                            |                                | 0.2                                  |
| NEVIS 039-22W4                     |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE B                        | 305.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| BLAIRMORE C                        | 1 450.0                        | 0.10     |          | 145.0                          |                                | 145.0                          | 107.1                          | 37.9                                 |
| BLAIRMORE D                        | 126.0                          | 0.03     |          | 3.8                            |                                | 3.8                            | 2.4                            | 1.4                                  |
| BLAIRMORE F                        | 215.0                          | 0.10     |          | 21.5                           |                                | 21.5                           | 4.8                            | 16.7                                 |
| UPPER MANNVILLE A                  | 1 900.0                        | 0.08     |          | 152.0                          |                                | 152.0                          | 62.4                           | 89.6                                 |
| UPPER MANNVILLE C                  | 36.2                           | 0.10     |          | 3.6                            |                                | 3.6                            | 3.0                            | 0.6                                  |
| LOWER MANNVILLE A                  | 62.7                           | 0.10     |          | 6.3                            |                                | 6.3                            | 0.5                            | 5.8                                  |
| DEVONIAN                           | 429.0                          | <0.04    |          | 14.2                           |                                | 14.2                           | 14.2                           |                                      |
| D-3 B                              | 238.0                          | 0.15     |          | 35.8                           |                                | 35.8                           | 35.0                           | 0.8                                  |
| D-3 C                              | 222.0                          | 0.22     |          | 48.9                           |                                | 48.9                           | 47.3                           | 1.6                                  |
| D-3 D                              | 191.0                          | 0.20     |          | 38.2                           |                                | 38.2                           | 21.6                           | 16.6                                 |
| D-3 E                              | 1 270.0                        | 0.15     |          | 191.0                          |                                | 191.0                          | 120.7                          | 70.3                                 |
| D-3 F                              | 400.0                          | 0.03     |          | 12.0                           |                                | 12.0                           | 11.1                           | 0.9                                  |
| NEW NORWAY 044-22W4                |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE                          | 69.1                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BASAL QUARTZ C                     | 163.0                          | <0.01    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| D-2                                | 2 150.0                        | 0.65     |          | 1 400.0                        |                                | 1 400.0                        | 1 222.4                        | 177.6                                |
| D-3                                | 318.0                          | 0.60     |          | 191.0                          |                                | 191.0                          | 178.4                          | 12.6                                 |
| NIPISI 079-08W5                    |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A                      | 353.0                          | 0.10     |          | 35.3                           |                                | 35.3                           | 4.7                            | 30.6                                 |
| GILWOOD A TOTAL                    | 115 000.0                      |          |          | 29 600.0                       | 23 400.0                       | 53 000.0                       | 36 910.4                       | 16 089.6                             |
| PRIMARY AREA                       | 2 400.0                        | <0.17    |          | 400.0                          |                                | 400.0                          |                                |                                      |
| SOLVENT FLOOD AREA                 | 16 100.0                       | 0.26     | 0.33     | 4 190.0                        | 5 330.0                        | 9 520.0                        |                                |                                      |
| WATER FLOOD AREA                   | 96 000.0                       | 0.26     | 0.19     | 25 000.0                       | 18 100.0                       | 43 100.0                       |                                |                                      |
| GILWOOD C TOTAL                    | 4 190.0                        |          |          | 629.0                          | 380.0                          | 1 010.0                        | 509.8                          | 500.2                                |
| PRIMARY AREA                       | 393.0                          | 0.15     |          | 59.0                           |                                | 59.0                           |                                |                                      |
| WATER FLOOD AREA                   | 3 800.0                        | 0.15     | 0.10     | 570.0                          | 380.0                          | 950.0                          |                                |                                      |
| GILWOOD E                          | 135.0                          | 0.15     |          | 20.3                           |                                | 20.3                           | 13.8                           | 6.5                                  |
| GILWOOD F                          | 100.0                          | 0.20     |          | 20.0                           |                                | 20.0                           | 4.5                            | 15.5                                 |
| GILWOOD G                          | 150.0                          | 0.15     |          | 22.5                           |                                | 22.5                           | 9.0                            | 13.5                                 |
| KEG RIVER                          | 1 970.0                        | 0.25     |          | 493.0                          |                                | 493.0                          | 414.6                          | 78.4                                 |
| SANDSTONE A                        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                          | 2 050.0                        | 0.35     |          | 718.0                          |                                | 718.0                          | 273.1                          | 444.9                                |
| SANDSTONE E                        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                          | 323.0                          | 0.10     |          | 32.3                           |                                | 32.3                           | 5.5                            | 26.8                                 |
| SANDSTONE F                        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                          | 355.0                          | 0.03     |          | 10.7                           |                                | 10.7                           | 8.6                            | 2.1                                  |
| SANDSTONE G                        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                          | 192.0                          | 0.25     |          | 48.0                           |                                | 48.0                           | 11.9                           | 36.1                                 |
| SANDSTONE H                        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                          | 130.0                          | 0.25     |          | 32.5                           |                                | 32.5                           | 8.2                            | 24.3                                 |
| SANDSTONE I                        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                          | 223.0                          | 0.25     |          | 55.8                           |                                | 55.8                           | 4.4                            | 51.4                                 |
| SANDSTONE J                        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                          | 29.4                           | <0.02    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| SANDSTONE K                        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                          | 384.0                          | 0.25     |          | 96.0                           |                                | 96.0                           | 5.4                            | 90.6                                 |
| SANDSTONE L                        |                                |          |          |                                |                                |                                |                                |                                      |
| NITON 055-12W5                     |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                          | 397.0                          | <0.03    |          | 8.1                            |                                | 8.1                            | 8.1                            |                                      |
| CARDIUM B                          | 137.0                          | 0.10     |          | 13.7                           |                                | 13.7                           | 3.7                            | 10.0                                 |
| BASAL QUARTZ A                     | 153.0                          | 0.05     |          | 7.6                            |                                | 7.6                            |                                | 7.6                                  |
| BASAL QUARTZ B TOTAL               | 6 500.0                        |          |          | 1 510.0                        | 1 110.0                        | 2 520.0                        | 950.8                          | 1 669.2                              |
| PRIMARY AREA                       | 62.3                           | 0.23     |          | 14.3                           |                                | 14.3                           |                                |                                      |
| WATER FLOOD AREA                   | 6 540.0                        | 0.23     | 0.17     | 1 500.0                        | 1 110.0                        | 2 610.0                        |                                |                                      |
| BASAL QUARTZ C                     | 168.0                          | <0.01    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| BASAL QUARTZ G                     | 177.0                          | 0.10     |          | 17.7                           |                                | 17.7                           | 0.1                            | 17.6                                 |
| BASAL QUARTZ H&I                   | 203.0                          | <0.09    |          | 16.5                           |                                | 16.5                           | 10.9                           | 5.6                                  |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 130    | 2.74                        | 0.030    | 0.30          | 0.75      | 53                             | 839               | 48   | 8 720               | 1 161.6                    | 1953         | 64 12 - ABAND 60 10            |
| 16     | 10.97                       | 0.080    | 0.15          | 0.75      | 62                             | 849               | 56   | 10 760              | 1 397.2                    | 1955         | 76 12 - SUSP 83 03             |
| 323    | 14.48                       | 0.075    | 0.12          | 0.84      | 60                             | 844               | 60   | 13 100              | 1 608.1                    | 1960         | 72 02                          |
| 211    | 3.51                        | 0.110    | 0.10          | 0.84      | 62                             | 849               | 52   | 10 790              | 1 379.8                    | 1963         | 85 12 - GPP                    |
| 16     | 6.00                        | 0.100    | 0.15          | 0.70      | 135                            | 844               | 42   | 10 645              | 1 411.3                    | 1982         | 83 02                          |
| 128    | 9.99                        | 0.120    | 0.24          | 0.84      | 59                             | 890               | 61   | 10 412              | 1 370.6                    | 1982         | 84 01                          |
| 64     | 8.30                        | 0.060    | 0.21          | 0.84      | 59                             | 842               | 61   | 16 051              | 1 642.7                    | 1983         | 84 03 - ABAND 84 01            |
| 65     | 3.35                        | 0.220    | 0.20          | 0.80      | 89                             | 881               | 49   | 9 340               | 1 404.5                    | 1967         | 74 04 - ABAND 74 03            |
| 640    | 2.32                        | 0.190    | 0.43          | 0.90      | 53                             | 893               | 57   | 10 060              | 1 391.0                    | 1959         | 85 12 - GPP                    |
| 64     | 2.44                        | 0.130    | 0.30          | 0.88      | 51                             | 870               | 38   | 9 450               | 1 478.0                    | 1977         | 82 12                          |
| 128    | 2.40                        | 0.140    | 0.35          | 0.80      | 70                             | 886               | 57   | 11 118              | 1 418.7                    | 1982         | 84 06                          |
| 513    | 3.82                        | 0.150    | 0.27          | 0.88      | 44                             | 915               | 55   | 10 000              | 1 423.4                    | 1977         | 80 12                          |
| 32     | 1.80                        | 0.130    | 0.45          | 0.88      | 44                             | 916               | 54   | 8 673               | 1 441.2                    | 1983         | 84 05                          |
| 64     | 1.20                        | 0.170    | 0.40          | 0.80      | 64                             | 893               | 54   | 11 003              | 1 404.6                    | 1981         | 84 06 - GPP                    |
| 199    | 4.82                        | 0.080    | 0.20          | 0.70      |                                |                   | 58   | 16 060              | 1 722.4                    | 1952         | 52 09 - SUSP 62 05             |
| 7      | 53.95                       | 0.087    | 0.20          | 0.87      | 53                             | 870               | 43   | 16 810              | 1 856.5                    | 1968         | 85 07 - GPP                    |
| 6      | 65.87                       | 0.080    | 0.20          | 0.87      | 40                             | 870               | 64   | 16 820              | 1 788.3                    | 1967         | 83 08 - GPP                    |
| 14     | 31.80                       | 0.065    | 0.20          | 0.83      | 64                             | 876               | 64   | 15 730              | 1 821.5                    | 1969         | 79 03 - GPP                    |
| 34     | 45.81                       | 0.120    | 0.17          | 0.82      | 79                             | 887               | 38   | 16 130              | 1 832.5                    | 1970         | 84 12 - GPP                    |
| 64     | 11.80                       | 0.076    | 0.15          | 0.82      | 74                             | 887               | 38   | 14 710              | 1 755.6                    | 1970         | 79 12 - GPP                    |
| 16     | 4.88                        | 0.175    | 0.35          | 0.77      | 80                             | 825               | 56   | 10 140              | 1 393.9                    | 1953         | 58 05 - ABAND 56 06            |
| 64     | 2.50                        | 0.220    | 0.40          | 0.77      | 71                             | 837               | 44   | 9 410               | 1 336.8                    | 1980         | 84 12 - ABAND 83 02            |
| 197    | 18.70                       | 0.085    | 0.14          | 0.80      | 82                             | 825               | 54   | 10 620              | 1 425.2                    | 1951         | 81 12                          |
| 77     | 15.03                       | 0.044    | 0.20          | 0.78      | 84                             | 839               | 58   | 14 070              | 1 495.7                    | 1951         | 73 02 - GPP                    |
| 128    | 6.30                        | 0.085    | 0.44          | 0.92      | 16                             | 830               | 54   | 17 149              | 1 680.9                    | 1982         | 85 04                          |
| 31 104 |                             |          |               |           | 65                             | 820               | 49   | 18 130              | 1 708.7                    | 1965         | 85 11                          |
| 1 856  | 2.28                        | 0.104    | 0.34          | 0.83      |                                |                   |      |                     |                            |              |                                |
| 2 240  | 8.12                        | 0.157    | 0.32          | 0.83      |                                |                   |      |                     |                            |              |                                |
| 27 008 | 4.54                        | 0.143    | 0.34          | 0.83      |                                |                   |      |                     |                            |              |                                |
| 1 831  |                             |          |               |           | 56                             | 820               | 62   | 18 090              | 1 790.4                    | 1969         | 82 12 - GPP                    |
| 192    | 3.16                        | 0.120    | 0.17          | 0.83      |                                |                   |      |                     |                            |              |                                |
| 1 639  | 3.58                        | 0.120    | 0.35          | 0.83      |                                |                   |      |                     |                            |              |                                |
| 64     | 3.28                        | 0.126    | 0.38          | 0.82      | 65                             | 821               | 56   | 9 628               | 1 675.8                    | 1979         | 85 06                          |
| 64     | 2.30                        | 0.130    | 0.37          | 0.83      | 61                             | 821               | 47   | 7 741               | 1 678.2                    | 1980         | 82 08                          |
| 128    | 1.80                        | 0.115    | 0.32          | 0.82      | 65                             | 821               | 56   | 10 586              | 1 680.2                    | 1979         | 85 06                          |
| 1 521  | 1.46                        | 0.143    | 0.27          | 0.85      | 65                             | 820               | 56   | 18 000              | 1 747.1                    | 1966         | 68 02 - GPP                    |
| 493    | 4.06                        | 0.180    | 0.33          | 0.85      | 55                             | 820               | 50   | 15 027              | 1 733.2                    | 1979         | 85 06                          |
| 64     | 5.00                        | 0.180    | 0.34          | 0.85      | 53                             | 810               | 54   | 13 850              | 1 768.5                    | 1980         | 83 12 - GPP                    |
| 64     | 6.40                        | 0.170    | 0.40          | 0.85      | 53                             | 849               | 52   | 15 500              | 1 738.1                    | 1972         | 84 12                          |
| 64     | 3.40                        | 0.160    | 0.35          | 0.85      | 55                             | 824               | 43   | 13 060              | 1 749.4                    | 1982         | 83 04                          |
| 64     | 1.90                        | 0.180    | 0.30          | 0.85      | 50                             | 830               | 57   | 12 622              | 1 751.0                    | 1982         | 83 05                          |
| 64     | 3.50                        | 0.180    | 0.35          | 0.85      | 53                             | 820               | 52   | 5 800               | 1 740.5                    | 1984         | 84 08                          |
| 64     | 1.50                        | 0.080    | 0.55          | 0.85      | 55                             | 824               | 44   | 12 390              | 1 748.3                    | 1984         | 84 08 - ABAND 84 11            |
| 64     | 6.10                        | 0.170    | 0.32          | 0.85      | 55                             | 825               | 47   | 12 005              | 1 745.7                    | 1984         | 84 11                          |
| 65     | 7.92                        | 0.100    | 0.11          | 0.87      | 48                             | 834               | 57   | 9 400               | 1 428.0                    | 1970         | 74 12 - SUSP 74 07             |
| 64     | 6.00                        | 0.056    | 0.25          | 0.85      | 64                             | 865               | 42   | 10 050              | 1 402.9                    | 1984         | 85 03                          |
| 177    | 1.25                        | 0.146    | 0.35          | 0.73      | 114                            | 839               | 80   | 16 440              | 1 962.0                    | 1968         | 76 08 - GPP                    |
| 2 564  |                             |          |               |           | 114                            | 839               | 76   | 16 270              | 1 973.0                    | 1965         | 80 06 - GPP                    |
| 54     | 1.96                        | 0.152    | 0.47          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 2 510  | 4.43                        | 0.152    | 0.47          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 64     | 3.66                        | 0.150    | 0.35          | 0.73      | 114                            | 839               | 80   | 16 440              | 1 962.0                    | 1968         | 76 08 - SUSP 70 03             |
| 64     | 4.63                        | 0.130    | 0.27          | 0.73      | 56                             | 900               | 80   | 15 940              | 1 948.6                    | 1979         | 79 12                          |
| 128    | 2.63                        | 0.122    | 0.32          | 0.73      | 114                            | 864               | 76   | 16 170              | 1 867.5                    | 1981         | 82 07                          |



TABLE 2-4

| FIELD<br>POOL                | 1                              | 2        | 3        | 4                              | 5                              | 6                              | 7                              | 8                                    |
|------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                              | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                              |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                              | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>NORMANDVILLE 079-22W5</b> |                                |          |          |                                |                                |                                |                                |                                      |
| JURASSIC A                   | 120.0                          | 0.01     |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| MISSISSIPPIAN B              | 23.4                           | 0.04     |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| D-1 A                        | 531.0                          | 0.35     |          | 186.0                          |                                | 186.0                          | 164.0                          | 22.0                                 |
| D-1 B                        | 805.0                          | 0.10     |          | 80.5                           |                                | 80.5                           | 0.4                            | 80.1                                 |
| D-3 A                        | 412.0                          | 0.41     |          | 169.0                          |                                | 169.0                          | 167.3                          | 1.7                                  |
| D-3 B                        | 563.0                          | 0.31     |          | 175.0                          |                                | 175.0                          | 170.1                          | 4.9                                  |
| <b>NORTHVILLE 052-10W5</b>   |                                |          |          |                                |                                |                                |                                |                                      |
| ROCK CREEK A                 | 75.3                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| JURASSIC A                   | 231.0                          | 0.10     |          | 23.1                           |                                | 23.1                           | 1.8                            | 21.3                                 |
| <b>OBERLIN 038-21W4</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE C                  | 197.0                          | 0.04     |          | 7.9                            |                                | 7.9                            | 4.4                            | 3.5                                  |
| <b>OGSTON 089-10W5</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                    | 1 410.0                        | 0.05     |          | 70.5                           |                                | 70.5                           | 35.2                           | 35.3                                 |
| SANDSTONE A                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                    | 513.0                          | <0.01    |          | 1.6                            |                                | 1.6                            | 1.6                            |                                      |
| SANDSTONE B                  |                                |          |          |                                |                                |                                |                                |                                      |
| <b>OKOTOKS 021-28W4</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| WABAMUN A                    | 167.0                          | <0.01    |          | 1.5                            |                                | 1.5                            | 1.5                            |                                      |
| <b>OPEN CREEK 042-05W5</b>   |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                | 291.0                          | <0.06    |          | 15.5                           |                                | 15.5                           | 15.5                           |                                      |
| BELLY RIVER B                | 333.0                          | 0.15     |          | 50.0                           |                                | 50.0                           | 38.8                           | 11.2                                 |
| VIKING A                     | 13.5                           | 0.15     |          | 2.0                            |                                | 2.0                            |                                | 2.0                                  |
| BANFF A                      | 224.0                          | <0.02    |          | 4.3                            |                                | 4.3                            | 4.3                            |                                      |
| <b>OTTER 088-12W5</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A                | 3 000.0                        | 0.20     |          | 600.0                          |                                | 600.0                          | 55.7                           | 544.3                                |
| GRANITE WASH A               | 2 500.0                        | 0.20     |          | 500.0                          |                                | 500.0                          | 94.4                           | 405.6                                |
| GRANITE WASH D               | 49.7                           | 0.15     |          | 7.5                            |                                | 7.5                            | 1.7                            | 5.8                                  |
| GRANITE WASH E               | 62.5                           | 0.20     |          | 12.5                           |                                | 12.5                           | 0.8                            | 11.7                                 |
| <b>PADDLE RIVER 057-08W5</b> |                                |          |          |                                |                                |                                |                                |                                      |
| D-2 A                        | 181.0                          | <0.13    |          | 22.2                           |                                | 22.2                           | 22.2                           |                                      |
| <b>PAKOWKI LAKE 004-07W4</b> |                                |          |          |                                |                                |                                |                                |                                      |
| SUNBURST A                   | 62.1                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| <b>PANNY 096-06W5</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER A                  | 484.0                          | 0.25     |          | 121.0                          |                                | 121.0                          | 16.8                           | 104.2                                |
| KEG RIVER B                  | 244.0                          | 0.25     |          | 61.0                           |                                | 61.0                           | 8.3                            | 52.7                                 |
| KEG RIVER C                  | 1 220.0                        | 0.30     |          | 366.0                          |                                | 366.0                          | 47.6                           | 318.4                                |
| KEG RIVER D                  | 2 600.0                        | 0.40     |          | 1 040.0                        |                                | 1 040.0                        | 93.9                           | 946.1                                |
| KEG RIVER E                  | 78.0                           | 0.30     |          | 23.4                           |                                | 23.4                           | 4.1                            | 19.3                                 |
| <b>PARFLESH 025-22W4</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE C            | 101.0                          | 0.10     |          | 10.1                           |                                | 10.1                           | 0.3                            | 9.8                                  |
| UPPER MANNVILLE D            | 328.0                          | 0.10     |          | 32.8                           |                                | 32.8                           | 3.9                            | 28.9                                 |
| LOWER MANNVILLE B            | 383.0                          | <0.02    |          | 4.3                            |                                | 4.3                            | 4.3                            |                                      |
| LOWER MANNVILLE C            | 1 610.0                        |          |          | 351.0                          | 289.0                          | 640.0                          | 392.9                          | 247.1                                |
| TOTAL                        |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                 | 106.0                          | 0.22     |          | 23.3                           |                                | 23.3                           |                                |                                      |
| WATER FLOOD AREA             | 1 500.0                        | 0.22     | 0.19     | 328.0                          | 289.0                          | 617.0                          |                                |                                      |
| <b>PEARL 030-16W4</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| BANFF A                      | 50.4                           | 0.10     |          | 5.0                            |                                | 5.0                            | 3.9                            | 1.1                                  |
| <b>PEAVEY 056-24W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| MIDDLE VIKING A              | 529.0                          | 0.15     |          | 79.5                           |                                | 79.5                           | 77.6                           | 1.9                                  |
| BLAIRMORE TOTAL              | 1 450.0                        |          |          | 289.0                          | 36.5                           | 326.0                          | 174.6                          | 151.4                                |
| PRIMARY AREA                 | 1 080.0                        | 0.20     |          | 216.0                          |                                | 216.0                          |                                |                                      |
| WATER FLOOD AREA             | 365.0                          | 0.20     | 0.10     | 73.0                           | 36.5                           | 110.0                          |                                |                                      |
| BLAIRMORE B                  | 225.0                          | 0.10     |          | 22.5                           |                                | 22.5                           | 0.9                            | 21.6                                 |
| BLAIRMORE C                  | 79.3                           | 0.10     |          | 7.9                            |                                | 7.9                            | 2.4                            | 5.5                                  |
| <b>PECO 047-15W5</b>         |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                | 2 360.0                        | 0.10     |          | 236.0                          |                                | 236.0                          | 157.9                          | 78.1                                 |
| BELLY RIVER B                | 113.0                          | 0.12     |          | 13.6                           |                                | 13.6                           | 11.7                           | 1.9                                  |
| BELLY RIVER C                | 2 640.0                        | 0.10     |          | 264.0                          |                                | 264.0                          | 32.7                           | 231.3                                |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 32   | 3.66                        | 0.150    | 0.25          | 0.90      | 35                             | 921               | 33   | 7 270               | 821.7                      | 1957         | 61 02 - ABAND 61 11            |
| 16   | 1.52                        | 0.150    | 0.25          | 0.84      | 62                             | 839               | 37   | 10 930              | 1 066.2                    | 1957         | 61 02 - ABAND 61 11            |
| 365  | 7.04                        | 0.035    | 0.28          | 0.82      | 68                             | 834               | 53   | 18 100              | 1 766.9                    | 1957         | 85 12 - GPP                    |
| 64   | 77.50                       | 0.030    | 0.34          | 0.82      | 66                             | 855               | 57   | 8 400               | 1 755.9                    | 1984         | 85 04                          |
| 65   | 21.34                       | 0.046    | 0.19          | 0.80      | 77                             | 825               | 66   | 21 820              | 2 049.8                    | 1949         | 80 12 - GPP                    |
| 213  | 14.57                       | 0.031    | 0.27          | 0.80      | 77                             | 825               | 66   | 21 750              | 2 048.0                    | 1958         | 82 12 - GPP                    |
| 64   | 2.80                        | 0.100    | 0.40          | 0.70      | 150                            | 813               | 62   | 16 500              | 1 982.9                    | 1984         | 85 07 - SUSP 85 06             |
| 64   | 8.00                        | 0.095    | 0.35          | 0.73      | 120                            | 885               | 77   | 16 002              | 2 032.7                    | 1981         | 82 03                          |
| 64   | 2.77                        | 0.160    | 0.20          | 0.87      | 51                             | 870               | 47   | 9 970               | 1 322.2                    | 1974         | 80 12 - SUSP 83 04             |
| 320  | 4.80                        | 0.150    | 0.29          | 0.86      | 62                             | 829               | 49   | 16 410              | 1 506.6                    | 1975         | 79 12 - GPP                    |
| 65   | 7.32                        | 0.220    | 0.42          | 0.85      | 50                             | 829               | 43   | 16 040              | 1 491.1                    | 1976         | 78 11 - ABAND 82 02            |
| 64   | 6.10                        | 0.100    | 0.25          | 0.57      | 235                            | 811               | 77   | 26 200              | 2 595.9                    | 1978         | 84 07 - ABAND 83 07            |
| 64   | 7.39                        | 0.150    | 0.50          | 0.82      | 82                             | 811               | 42   | 8 430               | 1 316.4                    | 1966         | 85 07 - ABAND 85 03            |
| 92   | 4.90                        | 0.150    | 0.40          | 0.82      | 82                             | 815               | 42   | 7 620               | 1 317.3                    | 1967         | 83 12                          |
| 64   | 0.43                        | 0.085    | 0.25          | 0.77      | 178                            | 817               | 86   | 22 204              | 2 000.0                    | 1984         | 85 10                          |
| 64   | 4.57                        | 0.111    | 0.20          | 0.86      | 53                             | 875               | 66   | 19 370              | 2 254.0                    | 1974         | 83 12 - SUSP 80 12             |
| 768  | 9.57                        | 0.065    | 0.31          | 0.91      | 34                             | 833               | 54   | 15 837              | 1 552.7                    | 1981         | 83 06                          |
| 653  | 3.40                        | 0.200    | 0.36          | 0.88      | 37                             | 832               | 43   | 16 225              | 1 592.1                    | 1983         | 85 09                          |
| 64   | 0.76                        | 0.191    | 0.37          | 0.85      | 55                             | 840               | 44   | 14 756              | 1 609.0                    | 1983         | 84 11                          |
| 64   | 1.09                        | 0.165    | 0.39          | 0.89      | 35                             | 860               | 45   | 6 150               | 1 593.9                    | 1984         | 85 04                          |
| 64   | 8.84                        | 0.053    | 0.25          | 0.80      | 117                            | 876               | 70   | 14 130              | 1 835.2                    | 1954         | 71 11 - ABAND 78 10            |
| 32   | 1.80                        | 0.190    | 0.39          | 0.93      | 30                             | 923               | 33   | 8 731               | 889.9                      | 1976         | 83 05 - SUSP 84 05             |
| 192  | 4.64                        | 0.080    | 0.22          | 0.87      | 51                             | 829               | 38   | 12 172              | 1 169.1                    | 1984         | 85 08                          |
| 64   | 5.90                        | 0.080    | 0.07          | 0.87      | 63                             | 831               | 38   | 11 527              | 1 124.3                    | 1984         | 85 04                          |
| 128  | 14.62                       | 0.090    | 0.17          | 0.87      | 51                             | 829               | 38   | 13 029              | 1 239.7                    | 1984         | 85 04                          |
| 421  | 11.38                       | 0.080    | 0.22          | 0.87      | 51                             | 837               | 38   | 12 622              | 1 232.2                    | 1983         | 85 04                          |
| 64   | 3.45                        | 0.059    | 0.32          | 0.88      | 51                             | 829               | 38   | 9 515               | 1 175.3                    | 1984         | 85 02                          |
| 64   | 2.00                        | 0.160    | 0.40          | 0.82      | 70                             | 847               | 49   | 10 293              | 1 493.3                    | 1981         | 83 04 - SUSP 83 04             |
| 64   | 9.50                        | 0.130    | 0.50          | 0.83      | 66                             | 860               | 37   | 8 765               | 1 442.0                    | 1981         | 83 09                          |
| 65   | 5.49                        | 0.180    | 0.25          | 0.80      | 71                             | 849               | 46   | 10 540              | 1 491.7                    | 1969         | 83 12 - SUSP 76 11             |
| 272  |                             |          |               |           | 66                             | 855               | 43   | 10 500              | 1 464.3                    | 1985         | 85 09                          |
| 16   | 4.50                        | 0.230    | 0.24          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 256  | 5.97                        | 0.180    | 0.30          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 64   | 2.13                        | 0.050    | 0.16          | 0.88      | 51                             | 894               | 38   | 9 184               | 1 288.9                    | 1976         | 84 04 - GPP                    |
| 146  | 2.59                        | 0.203    | 0.25          | 0.92      | 37                             | 876               | 38   | 6 070               | 848.0                      | 1953         | 79 12 - GPP                    |
| 288  |                             |          |               |           | 35                             | 876               | 43   | 8 270               | 1 067.1                    | 1952         | 84 12                          |
| 224  | 3.38                        | 0.206    | 0.23          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 64   | 4.00                        | 0.206    | 0.23          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 32   | 5.00                        | 0.240    | 0.35          | 0.90      | 42                             | 912               | 33   | 7 151               | 1 074.2                    | 1976         | 84 03                          |
| 16   | 3.90                        | 0.220    | 0.32          | 0.85      | 32                             | 916               | 35   | 6 028               | 1 071.8                    | 1983         | 84 03                          |
| 448  | 9.70                        | 0.120    | 0.42          | 0.78      | 106                            | 815               | 52   | 12 300              | 2 117.2                    | 1964         | 85 04 - GPP                    |
| 65   | 3.05                        | 0.140    | 0.47          | 0.77      | 106                            | 876               | 54   | 10 830              | 2 057.1                    | 1965         | 83 12 - GPP                    |
| 768  | 6.78                        | 0.100    | 0.35          | 0.78      | 80                             | 806               | 52   | 12 921              | 2 166.2                    | 1983         | 85 10                          |



TABLE 2-4

| FIELD<br>POOL                   | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                 | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                 |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                 | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| PECO 047-15W5<br>(CONTINUED)    |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER D                   | 202.0                          | 0.10     |          | 20.2                           |                                | 20.2                           | 1.2                            | 19.0                                 |
| BELLY RIVER E                   | 402.0                          | 0.10     |          | 40.2                           |                                | 40.2                           | 3.4                            | 36.8                                 |
| BELLY RIVER G                   | 52.6                           | 0.10     |          | 5.3                            |                                | 5.3                            |                                | 5.3                                  |
| BELLY RIVER H                   | 341.0                          | 0.10     |          | 34.1                           |                                | 34.1                           | 0.1                            | 34.0                                 |
| BELLY RIVER I                   | 157.0                          | 0.10     |          | 15.7                           |                                | 15.7                           |                                | 15.7                                 |
| BELLY RIVER J                   | 200.0                          | 0.10     |          | 20.0                           |                                | 20.0                           |                                | 20.0                                 |
| BELLY RIVER K                   | 393.0                          | 0.15     |          | 59.0                           |                                | 59.0                           |                                | 59.0                                 |
| CARDIUM A                       | 331.0                          | 0.08     |          | 26.5                           |                                | 26.5                           | 24.8                           | 1.7                                  |
| CARDIUM C                       | 228.0                          | 0.10     |          | 22.8                           |                                | 22.8                           | 12.3                           | 10.5                                 |
| CARDIUM D                       | 47.3                           | 0.10     |          | 4.7                            |                                | 4.7                            | 0.7                            | 4.0                                  |
| CARDIUM E                       | 10.8                           | 0.18     |          | 2.0                            |                                | 2.0                            | 1.7                            | 0.3                                  |
| CARDIUM F                       | 38.0                           | 0.05     |          | 1.9                            |                                | 1.9                            | 0.1                            | 1.8                                  |
| CARDIUM G                       | 199.0                          | 0.10     |          | 19.9                           |                                | 19.9                           | 5.3                            | 14.6                                 |
| GETHING B                       | 185.0                          | 0.10     |          | 18.5                           |                                | 18.5                           | 3.3                            | 15.2                                 |
| CADOMIN A                       | 39.7                           | 0.10     |          | 4.0                            |                                | 4.0                            | 1.3                            | 2.7                                  |
| CADOMIN B                       | 108.0                          | 0.10     |          | 10.8                           |                                | 10.8                           | 4.4                            | 6.4                                  |
| PEMBINA 048-07W5                |                                |          |          |                                |                                |                                |                                |                                      |
| KEYSTONE BELLY<br>RIVER B TOTAL | 28 600.0                       |          |          | 3 710.0                        | 5 940.0                        | 9 650.0                        | 5 868.3                        | 3 781.7                              |
| PRIMARY AREA                    | 1 400.0                        | 0.13     |          | 182.0                          |                                | 182.0                          |                                |                                      |
| WATER FLOOD AREA                | 27 200.0                       | 0.13     | 0.22     | 3 530.0                        | 5 940.0                        | 9 470.0                        |                                |                                      |
| KEYSTONE BELLY<br>RIVER C TOTAL | 10 300.0                       |          |          | 1 340.0                        | 1 740.0                        | 3 080.0                        | 1 990.1                        | 1 089.9                              |
| PRIMARY AREA                    | 2 370.0                        | 0.13     |          | 308.0                          |                                | 308.0                          |                                |                                      |
| WATER FLOOD AREA                | 7 900.0                        | 0.13     | 0.22     | 1 030.0                        | 1 740.0                        | 2 770.0                        |                                |                                      |
| BELLY RIVER G                   | 215.0                          | 0.15     |          | 32.3                           |                                | 32.3                           | 29.9                           | 2.4                                  |
| BELLY RIVER H                   | 923.0                          | 0.05     |          | 46.2                           |                                | 46.2                           | 45.3                           | 0.9                                  |
| BELLY RIVER I TOTAL             | 9 540.0                        |          |          | 1 310.0                        | 975.0                          | 2 290.0                        | 941.4                          | 1 348.6                              |
| PRIMARY AREA                    | 4 440.0                        | 0.13     |          | 565.0                          |                                | 565.0                          |                                |                                      |
| WATER FLOOD AREA                | 5 100.0                        | <0.15    | 0.20     | 746.0                          | 975.0                          | 1 720.0                        |                                |                                      |
| BELLY RIVER J                   | 1 420.0                        | 0.10     | 0.25     | 142.0                          | 356.0                          | 498.0                          | 150.8                          | 347.2                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEYSTONE BELLY<br>RIVER K       | 183.0                          | 0.15     |          | 27.5                           |                                | 27.5                           | 23.4                           | 4.1                                  |
| KEYSTONE BELLY<br>RIVER L TOTAL | 4 090.0                        |          |          | 447.0                          | 710.0                          | 1 160.0                        | 482.0                          | 678.0                                |
| PRIMARY AREA                    | 1 130.0                        | 0.05     |          | 56.5                           |                                | 56.5                           |                                |                                      |
| WATER FLOOD AREA                | 2 960.0                        | <0.14    | 0.24     | 390.0                          | 710.0                          | 1 100.0                        |                                |                                      |
| KEYSTONE BELLY<br>RIVER M TOTAL | 7 100.0                        |          |          | 852.0                          | 979.0                          | 1 830.0                        | 999.6                          | 830.4                                |
| PRIMARY AREA                    | 107.0                          | 0.12     |          | 12.8                           |                                | 12.8                           |                                |                                      |
| WATER FLOOD AREA                | 6 990.0                        | 0.12     | 0.14     | 839.0                          | 979.0                          | 1 820.0                        |                                |                                      |
| KEYSTONE BELLY<br>RIVER O       | 294.0                          | 0.10     |          | 29.4                           |                                | 29.4                           | 24.5                           | 4.9                                  |
| KEYSTONE BELLY<br>RIVER U TOTAL | 8 800.0                        |          |          | 1 120.0                        | 1 010.0                        | 2 130.0                        | 1 026.6                        | 1 103.4                              |
| PRIMARY AREA                    | 2 780.0                        | 0.13     |          | 362.0                          |                                | 362.0                          |                                |                                      |
| WATER FLOOD AREA                | 6 020.0                        | <0.13    | 0.17     | 760.0                          | 1 010.0                        | 1 770.0                        |                                |                                      |
| KEYSTONE BELLY<br>RIVER X TOTAL | 7 600.0                        |          |          | 608.0                          | 1 320.0                        | 1 930.0                        | 430.1                          | 1 499.9                              |
| PRIMARY AREA                    | 643.0                          | 0.08     |          | 51.4                           |                                | 51.4                           |                                |                                      |
| WATER FLOOD AREA                | 6 960.0                        | 0.08     | 0.19     | 557.0                          | 1 320.0                        | 1 880.0                        |                                |                                      |
| BELLY RIVER AA                  | 2 110.0                        | 0.06     |          | 127.0                          |                                | 127.0                          | 96.2                           | 30.8                                 |
| KEYSTONE BELLY<br>RIVER CC      | 910.0                          | 0.15     |          | 137.0                          |                                | 137.0                          | 123.4                          | 13.6                                 |
| BELLY RIVER DD                  | 491.0                          | 0.05     |          | 24.6                           |                                | 24.6                           | 2.1                            | 22.5                                 |
| BELLY RIVER EE                  | 408.0                          | <0.01    |          | 3.2                            |                                | 3.2                            | 3.2                            |                                      |
| BELLY RIVER II                  | 1 400.0                        | 0.05     |          | 70.0                           |                                | 70.0                           | 50.5                           | 19.5                                 |
| BELLY RIVER JJ                  | 254.0                          | <0.03    |          | 6.5                            |                                | 6.5                            | 5.8                            | 0.7                                  |
| BELLY RIVER KK                  | 1 300.0                        | 0.08     |          | 104.0                          | ERSD                           | 104.0                          | 52.1                           | 51.9                                 |
| KEYSTONE BELLY<br>RIVER LL      | 79.6                           | 0.10     |          | 8.0                            |                                | 8.0                            | 2.2                            | 5.8                                  |
| BELLY RIVER MM                  | 715.0                          | 0.05     |          | 35.8                           |                                | 35.8                           | 23.7                           | 12.1                                 |
| KEYSTONE BELLY<br>RIVER OO      | 315.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| BELLY RIVER RR                  | 435.0                          | 0.02     |          | 8.7                            |                                | 8.7                            | 3.9                            | 4.8                                  |
| KEYSTONE BELLY<br>RIVER TT      | 289.0                          | 0.01     |          | 2.9                            |                                | 2.9                            | 1.2                            | 1.7                                  |
| BELLY RIVER XX                  | 224.0                          | 0.02     |          | 4.5                            |                                | 4.5                            | 2.4                            | 2.1                                  |
| BELLY RIVER YY                  | 406.0                          | 0.10     |          | 40.6                           |                                | 40.6                           | 5.3                            | 35.3                                 |



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 5.20                        | 0.120    | 0.35          | 0.78      | 90                             | 799               | 50   | 9 900               | 2 000.2                    | 1984         | 85 03                          |
| 128   | 6.19                        | 0.100    | 0.35          | 0.78      | 52                             | 824               | 52   | 13 361              | 2 205.6                    | 1983         | 85 03                          |
| 64    | 1.80                        | 0.090    | 0.35          | 0.78      | 80                             | 806               | 52   | 12 300              | 2 223.4                    | 1984         | 85 07                          |
| 64    | 9.55                        | 0.110    | 0.35          | 0.78      | 80                             | 806               | 52   | 12 300              | 2 172.3                    | 1984         | 85 07                          |
| 64    | 5.80                        | 0.120    | 0.56          | 0.80      | 56                             | 810               | 61   | 7 674               | 1 986.1                    | 1985         | 85 10                          |
| 64    | 5.00                        | 0.120    | 0.35          | 0.80      | 56                             | 810               | 61   | 7 674               | 2 092.0                    | 1984         | 85 10                          |
| 64    | 11.00                       | 0.110    | 0.35          | 0.78      | 85                             | 806               | 50   | 11 500              | 2 066.6                    | 1985         | 85 10                          |
| 256   | 1.85                        | 0.120    | 0.13          | 0.67      | 217                            | 806               | 76   | 22 710              | 2 475.3                    | 1956         | 85 12 - GPP                    |
| 156   | 2.60                        | 0.110    | 0.15          | 0.60      | 204                            | 792               | 92   | 25 020              | 2 464.5                    | 1985         | 85 12                          |
| 64    | 1.40                        | 0.110    | 0.20          | 0.60      | 200                            | 791               | 74   | 19 300              | 2 473.2                    | 1981         | 82 07                          |
| 64    | 0.50                        | 0.070    | 0.20          | 0.60      | 200                            | 786               | 77   | 27 183              | 2 481.9                    | 1982         | 83 05                          |
| 64    | 1.20                        | 0.130    | 0.40          | 0.63      | 175                            | 770               | 62   | 26 120              | 2 427.7                    | 1976         | 80 01 - SUSP 76 08             |
| 192   | 2.21                        | 0.100    | 0.22          | 0.60      | 210                            | 792               | 77   | 31 300              | 2 486.5                    | 1983         | 85 03 - GPP                    |
| 64    | 4.00                        | 0.110    | 0.18          | 0.80      | 350                            | 783               | 100  | 26 620              | 3 048.8                    | 1984         | 84 12                          |
| 66    | 0.91                        | 0.120    | 0.30          | 0.80      | 66                             | 788               | 96   | 29 650              | 3 098.9                    | 1972         | 78 05 - SUSP 84 03             |
| 64    | 5.00                        | 0.085    | 0.25          | 0.53      | 352                            | 779               | 124  | 32 251              | 3 119.5                    | 1978         | 80 09 - GPP                    |
| 5 728 |                             |          |               |           | 42                             | 839               | 39   | 6 650               | 978.1                      | 1958         | 79 12                          |
| 480   | 3.64                        | 0.194    | 0.53          | 0.88      |                                |                   |      |                     |                            |              |                                |
| 5 248 | 6.00                        | 0.194    | 0.50          | 0.88      |                                |                   |      |                     |                            |              |                                |
| 1 986 |                             |          |               |           | 41                             | 839               | 39   | 6 550               | 979.3                      | 1959         | 82 12                          |
| 512   | 4.97                        | 0.190    | 0.45          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 1 474 | 5.73                        | 0.191    | 0.45          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 75    | 3.05                        | 0.150    | 0.30          | 0.89      | 35                             | 834               | 42   | 6 900               | 1 121.7                    | 1956         | 76 12 - SUSP 83 03             |
| 97    | 8.63                        | 0.200    | 0.38          | 0.89      | 39                             | 820               | 43   | 9 170               | 1 285.0                    | 1956         | 65 02 - GPP                    |
| 4 791 |                             |          |               |           | 65                             | 834               | 37   | 8 070               | 1 083.9                    | 1954         | 78 04 - GPP                    |
| 2 464 | 3.30                        | 0.186    | 0.67          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 2 327 | 4.01                        | 0.186    | 0.67          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 129   | 9.60                        | 0.200    | 0.35          | 0.88      | 39                             | 820               | 42   | 8 270               | 1 245.7                    | 1958         | 78 09 - GPP                    |
| 43    | 4.27                        | 0.220    | 0.48          | 0.87      | 43                             | 839               | 38   | 6 860               | 937.3                      | 1961         | 81 12 - GPP                    |
| 1 024 |                             |          |               |           | 42                             | 839               | 37   | 6 690               | 926.6                      | 1962         | 79 12                          |
| 192   | 5.92                        | 0.196    | 0.43          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 832   | 3.58                        | 0.196    | 0.43          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 2 209 |                             |          |               |           | 42                             | 839               | 38   | 6 720               | 965.0                      | 1962         | 85 03                          |
| 128   | 1.09                        | 0.170    | 0.48          | 0.87      |                                |                   |      |                     |                            |              |                                |
| 2 081 | 3.75                        | 0.198    | 0.48          | 0.87      |                                |                   |      |                     |                            |              | - GPP                          |
| 97    | 3.11                        | 0.215    | 0.48          | 0.87      | 46                             | 839               | 36   | 7 450               | 930.9                      | 1963         | 63 10 - GPP                    |
| 2 270 |                             |          |               |           | 43                             | 844               | 41   | 6 860               | 1 029.3                    | 1964         | 85 11                          |
| 702   | 4.68                        | 0.183    | 0.48          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 1 568 | 4.53                        | 0.183    | 0.48          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 1 792 |                             |          |               |           | 40                             | 844               | 42   | 7 856               | 1 040.9                    | 1965         | 83 04                          |
| 160   | 4.81                        | 0.179    | 0.48          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 1 632 | 5.10                        | 0.179    | 0.48          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 384   | 5.34                        | 0.205    | 0.43          | 0.88      | 40                             | 844               | 41   | 7 380               | 972.0                      | 1965         | 84 12 - GPP                    |
| 390   | 3.06                        | 0.186    | 0.54          | 0.89      | 40                             | 844               | 42   | 7 790               | 1 058.0                    | 1965         | 83 12 - GPP                    |
| 64    | 8.50                        | 0.180    | 0.43          | 0.88      | 40                             | 844               | 43   | 7 240               | 992.1                      | 1967         | 85 12 - GPP                    |
| 65    | 7.13                        | 0.188    | 0.46          | 0.87      | 43                             | 849               | 42   | 6 580               | 1 047.3                    | 1967         | 76 12 - ABAND 76 09            |
| 605   | 3.15                        | 0.207    | 0.60          | 0.89      | 65                             | 834               | 44   | 7 480               | 1 035.7                    | 1957         | 84 12 - GPP                    |
| 64    | 4.32                        | 0.190    | 0.45          | 0.88      | 40                             | 844               | 36   | 6 450               | 942.7                      | 1967         | 81 12 - GPP                    |
| 192   | 7.17                        | 0.181    | 0.40          | 0.87      | 41                             | 820               | 49   | 8 340               | 1 312.2                    | 1968         | 85 09 - GPP                    |
| 65    | 1.68                        | 0.165    | 0.50          | 0.89      | 40                             | 839               | 49   | 7 760               | 1 061.3                    | 1968         | 73 02 - SUSP 82 11             |
| 154   | 6.10                        | 0.140    | 0.39          | 0.89      | 40                             | 829               | 42   | 12 820              | 1 260.3                    | 1969         | 77 12 - GPP                    |
| 65    | 5.76                        | 0.190    | 0.50          | 0.89      | 44                             | 904               | 38   | 6 650               | 973.5                      | 1974         | 83 12 - SUSP 78 01             |
| 65    | 6.10                        | 0.200    | 0.38          | 0.89      | 43                             | 829               | 43   | 10 290              | 1 296.9                    | 1975         | 85 12 - GPP                    |
| 64    | 4.61                        | 0.200    | 0.45          | 0.89      | 41                             | 844               | 41   | 6 070               | 931.5                      | 1958         | 81 12 - GPP                    |
| 64    | 4.92                        | 0.200    | 0.60          | 0.89      | 62                             | 839               | 31   | 6 780               | 969.6                      | 1978         | 82 12 - SUSP 85 08             |
| 192   | 2.87                        | 0.180    | 0.54          | 0.89      | 62                             | 815               | 35   | 7 686               | 1 061.8                    | 1978         | 85 11                          |

TABLE 2-4

| FIELD<br>POOL                         | 1<br><br>INITIAL<br>VOLUME<br>IN PLACE<br><br>10 <sup>3</sup> m <sup>3</sup> | 2 3             |                  | 4 5 6                                     |  |   | 7<br><br>CUMULATIVE<br>PRODUCTION<br><br>10 <sup>3</sup> m <sup>3</sup> | 8<br><br>REMAINING<br>ESTABLISHED<br>RESERVES<br><br>10 <sup>3</sup> m <sup>3</sup> |
|---------------------------------------|--|-----------------|------------------|---|--|---|---|---|
|                                       |  | RECOVERY        |                  | INITIAL ESTABLISHED RESERVES              |  |   |   |   |
|                                       |  | PRIMARY<br>frac | ENHANCED<br>frac | PRIMARY<br>10 <sup>3</sup> m <sup>3</sup> | ENHANCED<br>10 <sup>3</sup> m <sup>3</sup> | TOTAL<br>10 <sup>3</sup> m <sup>3</sup> |   |   |
| PEMBINA 048-07W5<br>(CONTINUED)       |  |                 |                  |   |  |   |   |   |
| BELLY RIVER FFF&GGG<br>TOTAL          | 4 980.0  |                 |                  | 354.0                                     | 138.0                                      | 492.0                                   | 149.0   | 343.0   |
| PRIMARY AREA                          | 3 600.0  | 0.06            |                  | 216.0                                     |  | 216.0                                   |   |   |
| WATER FLOOD AREA                      | 1 380.0  | 0.10            | 0.10             | 138.0                                     | 138.0                                      | 276.0                                   |   |   |
| BELLY RIVER BBB                       | 125.0  | 0.10            |                  | 12.6                                      |  | 12.6                                    | 3.4   | 9.2   |
| BELLY RIVER DDD                       | 4 000.0  | 0.10            |                  | 400.0                                     |  | 400.0                                   | 92.9  | 307.1   |
| BELLY RIVER JJJ                       | 292.0  | 0.03            |                  | 8.8                                       |  | 8.8                                     | 2.6   | 6.2   |
| BELLY RIVER LLL                       | 545.0  | 0.10            |                  | 54.5                                      |  | 54.5                                    | 12.1  | 42.4  |
| BELLY RIVER MMM                       | 350.0  | 0.10            |                  | 35.0                                      |  | 35.0                                    | 0.3   | 34.7  |
| BELLY RIVER NNN                       | 217.0  | 0.05            |                  | 10.4                                      |  | 10.4                                    | 1.7   | 8.7   |
| BELLY RIVER PPP                       | 744.0  | 0.10            |                  | 74.4                                      |  | 74.4                                    | 3.3   | 71.1  |
| BELLY RIVER RRR                       | 315.0  | 0.10            |                  | 31.5                                      |  | 31.5                                    | 2.0   | 29.5  |
| BELLY RIVER TTT                       | 1 670.0  | 0.10            |                  | 167.0                                     |  | 167.0                                   | 15.2  | 151.8   |
| BELLY RIVER UUU                       | 793.0  | 0.10            |                  | 79.3                                      |  | 79.3                                    | 1.8   | 77.5  |
| BELLY RIVER VVV                       | 239.0  | 0.10            |                  | 23.9                                      |  | 23.9                                    | 0.2   | 23.7  |
| BELLY RIVER WWW                       | 125.0  | 0.10            |                  | 12.5                                      |  | 12.5                                    |   | 12.5  |
| BELLY RIVER XXX                       | 191.0  | 0.10            |                  | 19.1                                      |  | 19.1                                    |   | 19.1  |
| BELLY RIVER YYY                       | 176.0  | 0.10            |                  | 17.6                                      |  | 17.6                                    | 0.3   | 17.3  |
| BELLY RIVER ZZZ                       | 519.0  | 0.10            |                  | 51.9                                      |  | 51.9                                    | 3.6   | 48.3  |
| BELLY RIVER A2A                       | 200.0  | 0.10            |                  | 20.0                                      |  | 20.0                                    | 12.7  | 7.3   |
| BELLY RIVER D2D                       | 385.0  | 0.10            |                  | 38.5                                      |  | 38.5                                    |   | 38.5  |
| CARDIUM TOTAL                         | 1 180 000.0  |                 |                  | 131 000.0                                 | 108 000.0                                  | 239 000.0                               | 159 921.8   | 79 078.2  |
| PRIMARY AREA                          | 278 000.0  | <0.09           |                  | 23 800.0                                  |  | 23 800.0                                |   |   |
| SOLVENT FLOOD AREA<br>(LOBSTICK UNIT) | 11 000.0   | 0.14            | 0.15             | 1 530.0                                   | 1 650.0                                    | 3 180.0                                 |   |   |
| WATER FLOOD AREA                      | 830 000.0  | <0.12           | 0.11             | 96 100.0                                  | 97 200.0                                   | 194 000.0                               |   |   |
| GAS FLOOD AREA                        | 6 830.0  | <0.10           | 0.04             | 680.0                                     | 273.0                                      | 953.0                                   |   |   |
| WATER & SOLVENT<br>FLOOD AREA (NPCU)  | 56 700.0   | 0.15            | 0.16             | 8 570.0                                   | 9 070.0                                    | 17 600.0                                |   |   |
| CARDIUM B                             | 636.0  | 0.04            |                  | 25.4                                      |  | 25.4                                    | 18.0  | 7.4   |
| CARDIUM C                             | 407.0  | 0.01            |                  | 4.1                                       |  | 4.1                                     | 1.6   | 2.5   |
| CARDIUM D                             | 211.0  | 0.05            |                  | 10.6                                      |  | 10.6                                    | 6.7   | 3.9   |
| CARDIUM E                             | 187.0  | 0.05            |                  | 9.4                                       |  | 9.4                                     | 4.2   | 5.2   |
| CARDIUM F                             | 169.0  | 0.05            |                  | 8.5                                       |  | 8.5                                     | 0.3   | 8.2   |
| CARDIUM G                             | 125.0  | 0.03            |                  | 3.8                                       |  | 3.8                                     | 0.2   | 3.6   |
| CARDIUM H                             | 96.9   | 0.10            |                  | 9.7                                       |  | 9.7                                     | 5.4   | 4.3   |
| CARDIUM I                             | 320.0  | 0.10            |                  | 32.0                                      |  | 32.0                                    | 2.0   | 30.0  |
| CARDIUM J                             | 165.0  | 0.10            |                  | 16.5                                      |  | 16.5                                    | 1.1   | 15.4  |
| CARDIUM K                             | 247.0  | 0.10            |                  | 24.7                                      |  | 24.7                                    | 1.3   | 23.4  |
| SECOND WHITE<br>SPECKS A              | 100.0  | 0.10            |                  | 10.0                                      |  | 10.0                                    | 1.9   | 8.1   |
| VIKING B                              | 800.0  | 0.15            |                  | 120.0                                     |  | 120.0                                   | 71.6  | 48.4  |
| VIKING D                              | 213.0  | 0.10            |                  | 21.3                                      |  | 21.3                                    |   | 21.3  |
| LOBSTICK                              | 42.4   | 0.10            |                  | 4.2                                       |  | 4.2                                     | 0.9   | 3.3   |
| GLAUCONITIC J                         |  |                 |                  |   |  |   |   |   |
| GLAUCONITIC K                         | 318.0  | 0.10            |                  | 31.8                                      |  | 31.8                                    |   | 31.8  |
| LOBSTICK                              | 256.0  | <0.01           |                  | 0.1                                       |  | 0.1                                     | 0.1   |   |
| GLAUCONITIC N                         |  |                 |                  |   |  |   |   |   |
| LOBSTICK                              | 570.0  | 0.03            |                  | 17.1                                      |  | 17.1                                    | 14.6  | 2.5   |
| GLAUCONITIC P                         |  |                 |                  |   |  |   |   |   |
| LOBSTICK                              | 164.0  | 0.10            |                  | 16.4                                      |  | 16.4                                    | 0.1   | 16.3  |
| GLAUCONITIC Q                         |  |                 |                  |   |  |   |   |   |
| LOBSTICK                              | 1 040.0  | 0.10            |                  | 104.0                                     |  | 104.0                                   |   | 104.0   |
| GLAUCONITIC R                         |  |                 |                  |   |  |   |   |   |
| LOBSTICK                              | 353.0  | 0.10            |                  | 35.3                                      |  | 35.3                                    | 2.0   | 33.3  |
| GLAUCONITIC FL&M                      |  |                 |                  |   |  |   |   |   |
| OSTRACOD D                            | 239.0  | 0.06            |                  | 14.3                                      |  | 14.3                                    | 8.4   | 5.9   |
| OSTRACOD E TOTAL                      | 3 500.0  |                 |                  | 420.0                                     | 727.0                                      | 1 150.0                                 | 213.9   | 936.1   |
| PRIMARY AREA                          | 337.0  | 0.12            |                  | 40.4                                      |  | 40.4                                    |   |   |
| WATER FLOOD AREA                      | 3 160.0  | 0.12            | 0.23             | 379.0                                     | 727.0                                      | 1 110.0                                 |   |   |
| OSTRACOD F                            | 185.0  | 0.05            |                  | 9.3                                       |  | 9.3                                     | 3.4   | 5.9   |
| OSTRACOD G                            | 400.0  | 0.21            |                  | 84.0                                      | ERSD                                       | 84.0                                    | 55.0  | 29.0  |
| OSTRACOD H                            | 23.4   | 0.10            |                  | 2.3                                       |  | 2.3                                     | 0.2   | 2.1   |
| OSTRACOD K                            | 351.0  | 0.10            |                  | 35.1                                      |  | 35.1                                    | 6.3   | 28.8  |
| OSTRACOD M                            | 103.0  | 0.10            |                  | 10.3                                      |  | 10.3                                    | 0.8   | 9.5   |
| OSTRACOD N                            | 37.1   | 0.10            |                  | 3.7                                       |  | 3.7                                     | 1.2   | 2.5   |
| OSTRACOD O                            | 46.0   | 0.10            |                  | 4.6                                       |  | 4.6                                     |   | 4.6   |
| KEYSTONE ELLERSLIE A                  | 800.0  | 0.20            |                  | 160.0                                     | ERSD                                       | 160.0                                   | 119.8   | 40.2  |
| ELLERSLIE D                           | 155.0  | 0.10            |                  | 15.5                                      |  | 15.5                                    | 1.2   | 14.3  |
| ELLERSLIE E                           | 423.0  | 0.03            |                  | 12.7                                      |  | 12.7                                    | 3.9   | 8.8   |
| ELLERSLIE G                           | 2 180.0  | 0.10            |                  | 218.0                                     |  | 218.0                                   | 23.3  | 194.7   |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9       | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|---------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA    | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha      | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 1 840   |                             |          |               |           | 45                             | 841               | 32   | 6 825               | 990.9                      | 1978         | 85 08                          |
| 1 395   | 2.98                        | 0.180    | 0.46          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 445     | 3.80                        | 0.180    | 0.49          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 64      | 2.00                        | 0.190    | 0.42          | 0.89      | 46                             | 846               | 22   | 7 200               | 940.2                      | 1978         | 79 05                          |
| 1 088   | 4.32                        | 0.140    | 0.31          | 0.88      | 65                             | 817               | 49   | 10 716              | 1 471.1                    | 1978         | 85 11                          |
| 64      | 4.70                        | 0.170    | 0.35          | 0.88      | 50                             | 854               | 41   | 7 750               | 1 153.1                    | 1979         | 83 12 - GPP                    |
| 160     | 3.20                        | 0.190    | 0.37          | 0.89      | 42                             | 847               | 45   | 6 250               | 908.0                      | 1981         | 84 12                          |
| 64      | 6.30                        | 0.150    | 0.35          | 0.89      | 48                             | 840               | 36   | 5 829               | 865.7                      | 1981         | 82 05 - SUSP 84 02             |
| 64      | 2.70                        | 0.220    | 0.36          | 0.89      | 55                             | 846               | 40   | 6 612               | 995.7                      | 1981         | 83 12 - GPP                    |
| 128     | 6.60                        | 0.180    | 0.45          | 0.89      | 45                             | 844               | 38   | 6 200               | 999.4                      | 1981         | 85 07                          |
| 32      | 8.30                        | 0.212    | 0.35          | 0.86      | 52                             | 862               | 41   | 5 757               | 856.5                      | 1982         | 83 03                          |
| 256     | 7.27                        | 0.210    | 0.52          | 0.89      | 66                             | 853               | 37   | 7 645               | 1 042.9                    | 1981         | 85 11                          |
| 128     | 5.46                        | 0.210    | 0.40          | 0.90      | 65                             | 901               | 41   | 6 160               | 904.0                      | 1983         | 84 12                          |
| 64      | 4.60                        | 0.140    | 0.30          | 0.83      | 65                             | 845               | 52   | 7 625               | 1 137.9                    | 1983         | 83 12 - SUSP 84 06             |
| 32      | 4.40                        | 0.180    | 0.45          | 0.90      | 52                             | 857               | 41   | 6 612               | 901.5                      | 1983         | 84 03 - SUSP 84 07             |
| 64      | 3.00                        | 0.150    | 0.20          | 0.83      | 65                             | 848               | 52   | 7 423               | 1 161.5                    | 1983         | 84 09 - SUSP 84 05             |
| 64      | 4.80                        | 0.115    | 0.40          | 0.83      | 65                             | 848               | 52   | 9 315               | 1 398.3                    | 1984         | 84 09 - SUSP 85 07             |
| 64      | 9.10                        | 0.180    | 0.45          | 0.90      | 65                             | 837               | 41   | 6 679               | 983.0                      | 1958         | 84 09                          |
| 130     | 2.36                        | 0.130    | 0.34          | 0.76      | 65                             | 849               | 52   | 9 315               | 1 337.2                    | 1982         | 85 04                          |
| 64      | 6.90                        | 0.178    | 0.45          | 0.89      | 45                             | 841               | 32   | 6 825               | 976.6                      | 1985         | 85 10                          |
| 191 669 |                             |          |               |           | 96                             | 834               | 46   | 18 890              |                            | 1953         | 78 04 - GPP                    |
| 49 291  | 6.77                        | 0.121    | 0.15          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 908     | 12.98                       | 0.128    | 0.10          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 133 375 | 5.97                        | 0.143    | 0.10          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 2 981   | 2.62                        | 0.127    | 0.15          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 5 114   | 9.75                        | 0.156    | 0.10          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 194     | 4.05                        | 0.116    | 0.15          | 0.82      | 96                             | 834               | 60   | 12 410              | 1 213.7                    | 1963         | 83 12 - GPP                    |
| 65      | 7.01                        | 0.130    | 0.15          | 0.81      | 82                             | 834               | 44   | 10 280              | 1 339.0                    | 1974         | 78 12 - GPP                    |
| 64      | 4.36                        | 0.109    | 0.15          | 0.81      | 80                             | 834               | 46   | 18 620              | 1 806.2                    | 1976         | 82 12 - GPP                    |
| 64      | 2.70                        | 0.150    | 0.11          | 0.81      | 83                             | 834               | 53   | 17 540              | 1 840.1                    | 1978         | 85 12 - GPP                    |
| 64      | 3.49                        | 0.110    | 0.15          | 0.81      | 80                             | 834               | 50   | 17 733              | 1 760.6                    | 1981         | 83 12 - SUSP 83 09             |
| 64      | 2.81                        | 0.101    | 0.15          | 0.81      | 80                             | 834               | 56   | 10 000              | 1 620.8                    | 1981         | 82 11 - SUSP 84 01             |
| 64      | 2.00                        | 0.110    | 0.15          | 0.81      | 80                             | 840               | 40   | 15 689              | 1 226.4                    | 1982         | 82 05                          |
| 64      | 5.60                        | 0.120    | 0.20          | 0.93      | 28                             | 873               | 38   | 14 445              | 1 132.2                    | 1983         | 84 04                          |
| 64      | 3.40                        | 0.110    | 0.15          | 0.81      | 80                             | 834               | 50   | 15 100              | 1 844.0                    | 1983         | 84 04                          |
| 64      | 4.88                        | 0.115    | 0.15          | 0.81      | 80                             | 834               | 50   | 11 100              | 1 763.3                    | 1984         | 85 03                          |
| 64      | 2.00                        | 0.140    | 0.30          | 0.80      | 85                             | 870               | 60   | 19 461              | 1 799.0                    | 1984         | 84 09                          |
| 2 010   | 1.42                        | 0.056    | 0.26          | 0.68      | 156                            | 810               | 65   | 18 894              | 1 931.4                    | 1982         | 85 08                          |
| 64      | 5.20                        | 0.160    | 0.55          | 0.89      | 40                             | 830               | 40   | 10 760              | 1 583.0                    | 1983         | 83 12                          |
| 64      | 1.50                        | 0.120    | 0.54          | 0.80      | 90                             | 876               | 48   | 14 047              | 1 630.3                    | 1981         | 82 05 - GPP                    |
| 64      | 9.40                        | 0.110    | 0.40          | 0.80      | 88                             | 829               | 64   | 11 500              | 1 890.8                    | 1981         | 82 08                          |
| 64      | 8.00                        | 0.120    | 0.48          | 0.80      | 85                             | 889               | 68   | 12 905              | 1 602.5                    | 1980         | 84 12 - SUSP 82 08             |
| 196     | 6.84                        | 0.113    | 0.47          | 0.71      | 110                            | 871               | 66   | 12 039              | 1 560.0                    | 1982         | 84 09 - GPP                    |
| 64      | 4.10                        | 0.130    | 0.40          | 0.80      | 85                             | 860               | 56   | 13 000              | 1 870.9                    | 1984         | 85 01                          |
| 256     | 6.32                        | 0.110    | 0.27          | 0.80      | 85                             | 850               | 55   | 12 000              | 1 596.7                    | 1984         | 85 05                          |
| 64      | 11.30                       | 0.090    | 0.32          | 0.80      | 75                             | 876               | 60   | 12 362              | 1 616.1                    | 1980         | 85 06                          |
| 336     | 1.83                        | 0.090    | 0.40          | 0.72      | 160                            | 839               | 49   | 19 170              | 1 757.8                    | 1975         | 82 12                          |
| 3 185   |                             |          |               |           | 123                            | 840               | 57   | 15 866              | 1 618.2                    | 1979         | 85 11                          |
| 448     | 0.83                        | 0.160    | 0.25          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 2 737   | 1.28                        | 0.160    | 0.25          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 64      | 3.98                        | 0.120    | 0.16          | 0.72      | 140                            | 840               | 64   | 15 637              | 1 579.7                    | 1980         | 84 12                          |
| 965     | 0.83                        | 0.100    | 0.30          | 0.71      | 105                            | 810               | 57   | 14 953              | 1 729.7                    | 1979         | 85 01                          |
| 64      | 0.70                        | 0.110    | 0.34          | 0.72      | 140                            | 840               | 48   | 13 988              | 1 626.2                    | 1981         | 82 08 - SUSP 85 07             |
| 64      | 5.80                        | 0.150    | 0.16          | 0.75      | 109                            | 888               | 64   | 15 851              | 1 591.0                    | 1982         | 83 05                          |
| 64      | 2.80                        | 0.150    | 0.50          | 0.77      | 99                             | 910               | 60   | 14 127              | 1 665.8                    | 1984         | 85 05                          |
| 64      | 1.10                        | 0.120    | 0.43          | 0.77      | 99                             | 879               | 60   | 14 127              | 1 636.8                    | 1984         | 85 06                          |
| 64      | 1.60                        | 0.110    | 0.44          | 0.73      | 120                            | 793               | 58   | 15 293              | 1 620.8                    | 1980         | 85 08                          |
| 333     | 2.90                        | 0.140    | 0.20          | 0.74      | 115                            | 865               | 69   | 15 550              | 1 769.5                    | 1957         | 85 04                          |
| 64      | 4.80                        | 0.090    | 0.30          | 0.80      | 99                             | 832               | 46   | 17 794              | 2 323.3                    | 1978         | 81 12                          |
| 64      | 14.00                       | 0.090    | 0.30          | 0.75      | 99                             | 832               | 46   | 17 961              | 2 319.5                    | 1980         | 84 12                          |
| 957     | 3.33                        | 0.136    | 0.32          | 0.74      | 99                             | 870               | 50   | 15 659              | 1 695.7                    | 1982         | 85 07                          |



TABLE 2-4

| FIELD<br>POOL                   | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|---------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                 | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                 |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                 | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| PEMBINA 048-07W5<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| ELLERSLIE I                     | 129.0                          | 0.10     |          | 12.9                           |                                | 12.9                           | 2.4                            | 10.5                                 |
| ELLERSLIE K                     | 67.5                           | 0.10     |          | 6.8                            |                                | 6.8                            | 0.7                            | 6.1                                  |
| ELLERSLIE L                     | 266.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| ELLERSLIE M                     | 106.0                          | 0.10     |          | 10.6                           |                                | 10.6                           |                                | 10.6                                 |
| ELLERSLIE F                     | 227.0                          | 0.03     |          | 6.8                            |                                | 6.8                            | 0.2                            | 6.6                                  |
| JURASSIC C&D                    |                                |          |          |                                |                                |                                |                                |                                      |
| JURASSIC A                      | 690.0                          | 0.10     |          | 6.9                            |                                | 6.9                            | 2.6                            | 4.3                                  |
| JURASSIC B                      | 242.0                          | 0.10     |          | 24.2                           |                                | 24.2                           | 4.5                            | 19.7                                 |
| JURASSIC E                      | 396.0                          | 0.10     |          | 39.6                           |                                | 39.6                           | 4.3                            | 35.3                                 |
| JURASSIC F                      | 438.0                          | 0.10     |          | 43.8                           |                                | 43.8                           | 1.8                            | 42.0                                 |
| JURASSIC G                      | 95.7                           | 0.10     |          | 9.6                            |                                | 9.6                            | 0.7                            | 8.9                                  |
| JURASSIC J                      | 131.0                          | 0.10     |          | 13.1                           |                                | 13.1                           | 1.2                            | 11.9                                 |
| JURASSIC K                      | 300.0                          | 0.10     |          | 30.0                           |                                | 30.0                           |                                | 30.0                                 |
| JURASSIC L                      | 76.8                           | 0.10     |          | 7.7                            |                                | 7.7                            | 0.1                            | 7.6                                  |
| PEKISKD A                       | 118.0                          | <0.12    |          | 13.8                           |                                | 13.8                           | 13.8                           |                                      |
| BANFF A                         | 705.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| BANFF B                         | 525.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BANFF C                         | 104.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BLUERIDGE A                     | 650.0                          | 0.15     |          | 97.5                           |                                | 97.5                           | 42.4                           | 55.1                                 |
| BLUERIDGE B                     | 364.0                          | <0.01    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| BLUERIDGE C                     | 199.0                          | 0.05     |          | 10.0                           |                                | 10.0                           | 2.8                            | 7.2                                  |
| BLUERIDGE D                     | 410.0                          | 0.15     |          | 61.5                           |                                | 61.5                           | 11.0                           | 50.5                                 |
| NISKU A                         | 2 800.0                        | 0.40     | 0.30     | 1 120.0                        | 840.0                          | 1 960.0                        | 748.2                          | 1 211.8                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU B WATER FLOOD             | 80.0                           | 0.20     | 0.15     | 16.0                           | 12.0                           | 28.0                           | 6.0                            | 22.0                                 |
| NISKU C WATER FLOOD             | 1 430.0                        | 0.30     | 0.20     | 429.0                          | 286.0                          | 715.0                          | 406.2                          | 308.8                                |
| NISKU D WATER FLOOD             | 4 800.0                        | 0.40     | 0.13     | 1 920.0                        | 530.0                          | 2 550.0                        | 1 275.4                        | 1 274.6                              |
| NISKU E WATER FLOOD             | 700.0                          | 0.20     | 0.13     | 140.0                          | 90.0                           | 230.0                          | 97.5                           | 132.5                                |
| NISKU F                         | 2 100.0                        | 0.35     |          | 735.0                          |                                | 735.0                          | 78.1                           | 656.9                                |
| NISKU G                         | 3 000.0                        | 0.40     | 0.30     | 1 200.0                        | 900.0                          | 2 100.0                        | 820.1                          | 1 279.9                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU H WATER FLOOD             | 450.0                          | 0.30     | 0.22     | 135.0                          | 99.0                           | 234.0                          | 72.1                           | 161.9                                |
| NISKU I WATER FLOOD             | 750.0                          | 0.20     | 0.20     | 150.0                          | 150.0                          | 300.0                          | 21.0                           | 279.0                                |
| NISKU J WATER FLOOD             | 1 200.0                        | 0.35     | 0.12     | 420.0                          | 144.0                          | 564.0                          | 229.4                          | 334.6                                |
| NISKU K                         | 2 430.0                        | 0.40     | 0.30     | 972.0                          | 728.0                          | 1 700.0                        | 654.8                          | 1 045.2                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU L                         | 5 000.0                        | 0.25     | 0.57     | 1 250.0                        | 2 850.0                        | 4 100.0                        | 1 055.8                        | 3 044.2                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU M                         | 2 850.0                        | 0.40     | 0.35     | 1 140.0                        | 998.0                          | 2 140.0                        | 623.7                          | 1 516.3                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU N WATER FLOOD             | 1 600.0                        | 0.35     | 0.10     | 560.0                          | 160.0                          | 720.0                          | 71.0                           | 649.0                                |
| NISKU O                         | 1 700.0                        | 0.40     | 0.30     | 680.0                          | 510.0                          | 1 190.0                        | 274.0                          | 916.0                                |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU P                         | 4 250.0                        | 0.40     | 0.35     | 1 700.0                        | 1 490.0                        | 3 190.0                        | 702.5                          | 2 487.5                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU Q                         | 2 800.0                        | 0.40     | 0.44     | 1 120.0                        | 1 230.0                        | 2 350.0                        | 147.5                          | 2 202.5                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU R WATER FLOOD             | 400.0                          | 0.30     | 0.18     | 120.0                          | 72.0                           | 192.0                          | 56.9                           | 135.1                                |
| NISKU S WATER FLOOD             | 700.0                          | 0.40     | 0.10     | 280.0                          | 70.0                           | 350.0                          | 114.2                          | 235.8                                |
| PENDANT D'OREILLE<br>003-08W4   |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE F                     | 170.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| PENHOLD 036-27W4                |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                        | 125.0                          | <0.03    |          | 3.7                            |                                | 3.7                            | 3.7                            |                                      |
| VIKING B                        | 350.0                          | 0.15     |          | 52.5                           |                                | 52.5                           | 28.4                           | 24.1                                 |
| VIKING C                        | 40.4                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| VIKING D                        | 83.9                           | 0.10     |          | 8.4                            |                                | 8.4                            | 0.4                            | 8.0                                  |
| LOWER MANNVILLE A               | 1 490.0                        | 0.06     |          | 89.4                           |                                | 89.4                           | 49.2                           | 40.2                                 |
| D-2 A                           | 408.0                          | <0.03    |          | 10.1                           |                                | 10.1                           | 10.1                           |                                      |
| D-3 A                           | 183.0                          | <0.02    |          | 3.4                            |                                | 3.4                            | 3.4                            |                                      |
| PINE CREEK 057-19W5             |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                   | 87.0                           | 0.10     |          | 8.7                            |                                | 8.7                            |                                | 8.7                                  |
| CARDIUM L                       | 64.6                           | 0.10     |          | 6.5                            |                                | 6.5                            | 3.2                            | 3.3                                  |
| CARDIUM M                       | 110.0                          | 0.10     |          | 11.0                           |                                | 11.0                           | 6.9                            | 4.1                                  |
| CARDIUM N                       | 151.0                          | 0.10     |          | 15.1                           |                                | 15.1                           | 2.8                            | 12.3                                 |
| CARDIUM H&I                     | 6 100.0                        | 0.10     |          | 610.0                          |                                | 610.0                          | 297.8                          | 312.2                                |
| CARDIUM J&K                     | 22.8                           | 0.10     |          | 2.3                            |                                | 2.3                            | 1.1                            | 1.2                                  |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 2.80                        | 0.130    | 0.25          | 0.74      | 116                            | 863               | 67   | 14 728              | 1 561.1                    | 1983         | 83 07                          |
| 64    | 1.70                        | 0.150    | 0.47          | 0.78      | 83                             | 860               | 62   | 17 200              | 1 681.4                    | 1982         | 83 03                          |
| 64    | 6.90                        | 0.134    | 0.40          | 0.75      | 110                            | 860               | 60   | 16 050              | 2 075.5                    | 1984         | 85 01 - SUSP 85 03             |
| 64    | 2.69                        | 0.137    | 0.39          | 0.74      | 99                             | 870               | 50   | 15 659              | 1 673.4                    | 1984         | 85 07                          |
| 64    | 6.13                        | 0.120    | 0.30          | 0.69      | 155                            | 850               | 50   | 14 760              | 2 110.0                    | 1981         | 83 03 - SUSP 82 08             |
| 64    | 17.50                       | 0.110    | 0.30          | 0.80      | 91                             | 870               | 37   | 13 500              | 2 298.8                    | 1979         | 83 12 - GPP                    |
| 64    | 5.20                        | 0.130    | 0.30          | 0.80      | 80                             | 848               | 78   | 19 557              | 2 277.1                    | 1980         | 82 11                          |
| 128   | 4.30                        | 0.150    | 0.40          | 0.80      | 92                             | 880               | 52   | 15 767              | 1 731.9                    | 1982         | 85 12                          |
| 128   | 6.09                        | 0.090    | 0.22          | 0.80      | 176                            | 830               | 79   | 18 950              | 2 383.6                    | 1982         | 84 03                          |
| 64    | 4.00                        | 0.085    | 0.45          | 0.80      | 83                             | 896               | 70   | 13 237              | 2 082.0                    | 1982         | 83 11                          |
| 64    | 3.10                        | 0.120    | 0.31          | 0.80      | 92                             | 865               | 50   | 15 579              | 1 732.2                    | 1983         | 84 04                          |
| 64    | 5.25                        | 0.162    | 0.31          | 0.80      | 176                            | 826               | 79   | 18 950              | 2 263.3                    | 1985         | 85 11                          |
| 64    | 2.00                        | 0.150    | 0.50          | 0.80      | 80                             | 860               | 60   | 13 000              | 1 958.5                    | 1984         | 85 01 - SUSP 85 06             |
| 65    | 1.83                        | 0.150    | 0.20          | 0.83      | 53                             | 910               | 88   | 19 620              | 1 868.4                    | 1960         | 64 04 - SUSP 69 11             |
| 64    | 10.00                       | 0.200    | 0.32          | 0.81      | 75                             | 880               | 60   | 17 285              | 1 641.0                    | 1981         | 82 04 - ABAND 83 01            |
| 64    | 9.00                        | 0.150    | 0.25          | 0.81      | 88                             | 866               | 32   | 18 684              | 1 585.4                    | 1983         | 83 11 - ABAND 83 10            |
| 64    | 3.06                        | 0.113    | 0.42          | 0.81      | 84                             | 866               | 56   | 17 370              | 1 689.8                    | 1984         | 85 07                          |
| 145   | 15.10                       | 0.065    | 0.25          | 0.61      | 138                            | 816               | 83   | 24 387              | 2 606.1                    | 1978         | 79 08                          |
| 64    | 22.10                       | 0.050    | 0.22          | 0.66      | 162                            | 811               | 83   | 17 343              | 2 796.0                    | 1979         | 81 01 - ABAND 83 11            |
| 64    | 11.80                       | 0.050    | 0.20          | 0.66      | 162                            | 790               | 83   | 19 443              | 2 712.5                    | 1979         | 84 12                          |
| 64    | 30.20                       | 0.059    | 0.41          | 0.61      | 210                            | 829               | 84   | 22 635              | 2 587.3                    | 1981         | 82 04                          |
| 124   | 54.30                       | 0.080    | 0.20          | 0.65      | 185                            | 806               | 100  | 33 900              | 3 005.4                    | 1977         | 85 10                          |
| 34    | 7.47                        | 0.085    | 0.26          | 0.50      | 328                            | 801               | 99   | 30 175              | 2 911.0                    | 1977         | 84 09                          |
| 145   | 13.30                       | 0.120    | 0.13          | 0.71      | 145                            | 825               | 84   | 26 210              | 2 640.8                    | 1977         | 80 03                          |
| 320   | 17.36                       | 0.120    | 0.10          | 0.80      | 140                            | 841               | 82   | 25 781              | 2 583.7                    | 1978         | 84 04                          |
| 77    | 40.00                       | 0.040    | 0.20          | 0.71      | 180                            | 834               | 92   | 28 230              | 2 717.6                    | 1978         | 82 09                          |
| 170   | 16.66                       | 0.119    | 0.18          | 0.76      | 89                             | 852               | 83   | 26 640              | 2 550.2                    | 1978         | 85 08                          |
| 133   | 54.30                       | 0.080    | 0.20          | 0.65      | 123                            | 810               | 96   | 28 000              | 2 908.2                    | 1978         | 81 05                          |
| 76    | 10.12                       | 0.095    | 0.12          | 0.70      | 148                            | 833               | 89   | 27 173              | 2 767.7                    | 1978         | 84 01                          |
| 53    | 54.60                       | 0.047    | 0.21          | 0.70      | 115                            | 811               | 94   | 19 570              | 2 903.5                    | 1978         | 85 08                          |
| 69    | 52.40                       | 0.066    | 0.25          | 0.67      | 142                            | 809               | 90   | 27 730              | 2 791.0                    | 1978         | 80 09                          |
| 58    | 73.30                       | 0.104    | 0.18          | 0.67      | 147                            | 808               | 92   | 29 000              | 2 886.1                    | 1978         | 81 05                          |
| 253   | 30.10                       | 0.105    | 0.12          | 0.71      | 124                            | 821               | 93   | 28 620              | 2 869.7                    | 1978         | 85 09                          |
| 78    | 65.00                       | 0.090    | 0.07          | 0.69      | 140                            | 820               | 92   | 28 452              | 2 845.5                    | 1979         | 83 07                          |
| 85    | 29.13                       | 0.110    | 0.11          | 0.66      | 164                            | 809               | 88   | 27 460              | 2 757.5                    | 1979         | 85 12                          |
| 85    | 31.05                       | 0.118    | 0.16          | 0.65      | 148                            | 809               | 88   | 30 861              | 2 844.3                    | 1979         | 83 11                          |
| 170   | 44.00                       | 0.103    | 0.13          | 0.63      | 186                            | 800               | 93   | 28 992              | 2 905.0                    | 1979         | 83 08                          |
| 122   | 33.86                       | 0.098    | 0.09          | 0.76      | 150                            | 819               | 91   | 28 637              | 2 871.5                    | 1980         | 85 05                          |
| 64    | 10.86                       | 0.095    | 0.11          | 0.68      | 148                            | 827               | 89   | 27 299              | 2 762.4                    | 1980         | 84 01                          |
| 35    | 35.42                       | 0.096    | 0.16          | 0.70      | 127                            | 831               | 84   | 26 542              | 2 632.0                    | 1981         | 84 01                          |
| 65    | 2.44                        | 0.200    | 0.35          | 0.83      | 80                             | 855               | 38   | 8 270               | 910.4                      | 1969         | 70 09 - ABAND 70 06            |
| 64    | 3.13                        | 0.110    | 0.30          | 0.81      | 78                             | 849               | 51   | 8 630               | 1 680.4                    | 1976         | 79 09 - SUSP 81 12             |
| 469   | 1.36                        | 0.122    | 0.43          | 0.79      | 65                             | 850               | 55   | 9 113               | 1 701.2                    | 1981         | 85 12                          |
| 64    | 1.50                        | 0.130    | 0.60          | 0.81      | 66                             | 812               | 68   | 10 140              | 1 748.3                    | 1983         | 84 09 - ABAND 84 10            |
| 64    | 1.30                        | 0.180    | 0.30          | 0.80      | 76                             | 820               | 66   | 10 569              | 1 678.4                    | 1982         | 84 12 - SUSP 85 05             |
| 231   | 7.40                        | 0.130    | 0.14          | 0.78      | 91                             | 877               | 69   | 14 760              | 1 885.2                    | 1960         | 79 08 - GPP                    |
| 192   | 6.40                        | 0.060    | 0.21          | 0.70      | 160                            | 805               | 82   | 20 930              | 2 299.8                    | 1961         | 83 07 - ABAND 84 01            |
| 65    | 5.18                        | 0.109    | 0.17          | 0.60      | 217                            | 825               | 77   | 20 410              | 2 312.5                    | 1968         | 75 12 - SUSP 75 04             |
| 64    | 1.80                        | 0.130    | 0.30          | 0.83      | 68                             | 837               | 55   | 9 000               | 1 483.5                    | 1957         | 85 10                          |
| 64    | 2.20                        | 0.087    | 0.15          | 0.62      | 190                            | 821               | 60   | 19 768              | 1 801.7                    | 1980         | 82 03                          |
| 71    | 2.00                        | 0.150    | 0.18          | 0.63      | 180                            |                   | 72   | 22 082              | 2 242.0                    | 1981         | 83 12                          |
| 64    | 3.20                        | 0.150    | 0.30          | 0.70      | 135                            | 820               | 65   | 19 991              | 1 786.5                    | 1985         | 82 02                          |
| 4 160 | 2.24                        | 0.110    | 0.15          | 0.70      | 167                            | 805               | 68   | 21 745              | 1 976.2                    | 1980         | 82 02                          |
| 64    | 1.20                        | 0.050    | 0.15          | 0.70      |                                |                   |      |                     | 2 037.2                    | 1980         | 81 09 - GPP                    |



TABLE 2-4

| FIELD<br>POOL                      | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                    | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                    |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                    | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| PINE CREEK 057-19W5<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| SECOND WHITE<br>SPECKS A           | 2 860.0                        | 0.10     |          | 286.0                          | ERSD                           | 286.0                          | 200.4                          | 85.6                                 |
| SECOND WHITE<br>SPECKS C           | 384.0                          | 0.05     |          | 19.2                           |                                | 19.2                           | 3.1                            | 16.1                                 |
| D-3 C                              | 113.0                          | <0.28    |          | 31.5                           |                                | 31.5                           | 31.5                           |                                      |
| PINE NORTH-WEST<br>058-20W5        |                                |          |          |                                |                                |                                |                                |                                      |
| SECOND WHITE<br>SPECKS A           | 415.0                          | 0.02     |          | 8.3                            |                                | 8.3                            | 6.9                            | 1.4                                  |
| PINEDALE 054-16W4                  |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                           | 70.5                           | 0.10     |          | 7.1                            |                                | 7.1                            | 0.1                            | 7.0                                  |
| POUCE COUPE 080-12W6               |                                |          |          |                                |                                |                                |                                |                                      |
| CHARLIE LAKE A                     | 114.0                          | 0.10     |          | 11.4                           |                                | 11.4                           | 0.3                            | 11.1                                 |
| BOUNDARY A                         | 132.0                          | 0.10     |          | 13.2                           |                                | 13.2                           |                                | 13.2                                 |
| HALFWAY A                          | 153.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| HALFWAY B                          | 124.0                          | 0.10     |          | 12.4                           |                                | 12.4                           | 0.2                            | 12.2                                 |
| HALFWAY C                          | 616.0                          | 0.15     |          | 92.4                           |                                | 92.4                           | 9.0                            | 83.4                                 |
| POUCE COUPE SOUTH<br>078-12W6      |                                |          |          |                                |                                |                                |                                |                                      |
| BOUNDARY B TOTAL                   | 6 660.0                        |          |          | 733.0                          | 464.0                          | 1 200.0                        | 187.5                          | 1 012.5                              |
| PRIMARY AREA                       | 1 500.0                        | 0.11     |          | 165.0                          |                                | 165.0                          |                                |                                      |
| WATER FLOOD AREA                   | 5 160.0                        | 0.11     | 0.09     | 568.0                          | 464.0                          | 1 030.0                        |                                |                                      |
| BOUNDARY C                         | 133.0                          | 0.10     |          | 13.3                           |                                | 13.3                           | 8.9                            | 4.4                                  |
| BOUNDARY D                         | 67.8                           | 0.10     |          | 6.8                            |                                | 6.8                            | 1.5                            | 5.3                                  |
| BOUNDARY E                         | 113.0                          | 0.10     |          | 11.3                           |                                | 11.3                           | 2.3                            | 9.0                                  |
| BOUNDARY F                         | 125.0                          | 0.10     |          | 12.5                           |                                | 12.5                           | 1.9                            | 10.6                                 |
| BDY A & CH LK B<br>TOTAL           | 2 950.0                        |          |          | 295.0                          | 170.0                          | 465.0                          | 126.8                          | 338.2                                |
| PRIMARY AREA                       | 1 950.0                        | 0.10     |          | 195.0                          |                                | 195.0                          |                                |                                      |
| WATER FLOOD AREA                   | 998.0                          | 0.10     | 0.17     | 99.8                           | 170.0                          | 270.0                          |                                |                                      |
| PREVO 039-01W5                     |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                           | 118.0                          | 0.20     |          | 23.6                           |                                | 23.6                           | 12.0                           | 11.6                                 |
| VIKING B                           | 24.3                           | 0.20     |          | 4.9                            |                                | 4.9                            | 3.0                            | 1.9                                  |
| UPPER MANNVILLE A                  | 106.0                          | 0.06     |          | 6.4                            |                                | 6.4                            | 3.1                            | 3.3                                  |
| PROGRESS 077-09W6                  |                                |          |          |                                |                                |                                |                                |                                      |
| CHARLIE LAKE A                     | 87.7                           | 0.10     |          | 8.8                            |                                | 8.8                            |                                | 8.8                                  |
| CHARLIE LAKE B                     | 14.5                           | 0.10     |          | 1.5                            |                                | 1.5                            |                                | 1.5                                  |
| CHARLIE LAKE C                     | 31.0                           | 0.10     |          | 3.1                            |                                | 3.1                            |                                | 3.1                                  |
| CHARLIE LAKE E                     | 122.0                          | 0.10     |          | 12.2                           |                                | 12.2                           | 0.3                            | 11.9                                 |
| CHARLIE LAKE F                     | 92.9                           | 0.10     |          | 9.3                            |                                | 9.3                            | 1.0                            | 8.3                                  |
| CHARLIE LAKE G                     | 1 250.0                        | 0.10     |          | 125.0                          |                                | 125.0                          | 11.1                           | 113.9                                |
| BOUNDARY A                         | 19.4                           | 0.10     |          | 1.9                            |                                | 1.9                            |                                | 1.9                                  |
| HALFWAY B                          | 5 620.0                        | 0.10     |          | 562.0                          |                                | 562.0                          | 47.7                           | 514.3                                |
| PROVOST 036-07W4                   |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING P                           | 180.0                          | 0.05     |          | 9.0                            |                                | 9.0                            | 1.2                            | 7.8                                  |
| VIKING V                           | 170.0                          | 0.10     |          | 17.0                           |                                | 17.0                           | 10.3                           | 6.7                                  |
| VIKING Y                           | 328.0                          | 0.10     |          | 32.8                           |                                | 32.8                           | 6.2                            | 26.6                                 |
| VIKING GG                          | 105.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| VIKING RR                          | 61.7                           | 0.10     |          | 6.2                            |                                | 6.2                            | 1.8                            | 4.4                                  |
| VIKING UU                          | 13.9                           | 0.10     |          | 1.4                            |                                | 1.4                            |                                | 1.4                                  |
| VIKING CAK &<br>MANNVILLE E TOTAL  | 93 000.0                       |          |          | 4 880.0                        | 5 920.0                        | 10 800.0                       | 7 200.3                        | 3 599.7                              |
| PRIMARY AREA                       | 27 200.0                       | 0.08     |          | 2 180.0                        |                                | 2 180.0                        |                                |                                      |
| WATER FLOOD AREA                   | 65 800.0                       | 0.04     | 0.09     | 2 700.0                        | 5 920.0                        | 8 620.0                        |                                |                                      |
| BLAIRMORE                          | 1 630.0                        | 0.12     |          | 196.0                          |                                | 196.0                          | 164.6                          | 31.4                                 |
| MANNVILLE H                        | 415.0                          | 0.05     |          | 20.8                           |                                | 20.8                           | 12.2                           | 8.6                                  |
| MANNVILLE I                        | 745.0                          | 0.03     |          | 22.4                           |                                | 22.4                           | 13.3                           | 9.1                                  |
| MANNVILLE J                        | 453.0                          | 0.02     |          | 9.1                            |                                | 9.1                            | 5.1                            | 4.0                                  |
| MANNVILLE L                        | 3 360.0                        | 0.02     |          | 67.2                           |                                | 67.2                           | 20.4                           | 46.8                                 |
| MANNVILLE S                        | 1 290.0                        | 0.01     |          | 12.9                           |                                | 12.9                           | 7.1                            | 5.8                                  |
| MANNVILLE T                        | 264.0                          | 0.02     |          | 5.3                            |                                | 5.3                            | 2.1                            | 3.2                                  |
| MANNVILLE CC                       | 204.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LLOYDMINSTER A                     | 684.0                          | 0.03     |          | 20.5                           |                                | 20.5                           | 6.2                            | 14.3                                 |
| LLOYDMINSTER D                     | 1 780.0                        | 0.10     |          | 178.0                          |                                | 178.0                          | 18.4                           | 159.6                                |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 1 066  | 10.00                       | 0.042    | 0.10          | 0.71      | 127                            | 815               | 77   | 27 188              | 2 263.7                    | 1973         | 79 01                          |
| 64     | 6.50                        | 0.200    | 0.35          | 0.71      | 140                            | 833               | 63   | 18 500              | 1 878.5                    | 1981         | 83 12 - GPP                    |
| 64     | 5.23                        | 0.063    | 0.15          | 0.63      | 204                            | 801               | 107  | 32 010              | 3 304.2                    | 1959         | 76 05 - ABAND 79 08            |
| 65     | 7.62                        | 0.150    | 0.30          | 0.80      | 78                             | 806               | 68   | 20 480              | 1 845.6                    | 1975         | 78 12 - GPP                    |
| 64     | 1.20                        | 0.170    | 0.40          | 0.90      | 38                             | 856               | 33   | 4 741               | 645.4                      | 1982         | 83 07 - SUSP 83 09             |
| 64     | 3.10                        | 0.150    | 0.49          | 0.75      | 95                             | 826               | 70   | 10 896              | 1 596.6                    | 1984         | 85 03                          |
| 64     | 4.00                        | 0.080    | 0.14          | 0.75      | 100                            | 855               | 60   | 12 500              | 1 598.0                    | 1982         | 85 11 - SUSP 85 06             |
| 65     | 3.54                        | 0.098    | 0.15          | 0.80      | 85                             | 855               | 70   | 16 200              | 1 688.6                    | 1975         | 78 09 - SUSP 75 03             |
| 64     | 4.80                        | 0.101    | 0.50          | 0.80      | 74                             | 840               | 55   | 16 652              | 1 688.0                    | 1980         | 82 06                          |
| 256    | 4.99                        | 0.090    | 0.33          | 0.80      | 74                             | 840               | 56   | 15 695              | 1 637.4                    | 1984         | 85 12                          |
| 2 386  |                             |          |               |           | 135                            | 826               | 75   | 16 720              | 1 862.8                    | 1980         | 85 01                          |
| 640    | 3.10                        | 0.120    | 0.16          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 1 746  | 3.44                        | 0.130    | 0.12          | 0.75      |                                |                   |      |                     |                            |              |                                |
| 64     | 1.80                        | 0.170    | 0.14          | 0.79      | 76                             | 834               | 70   | 16 633              | 1 832.6                    | 1973         | 82 12                          |
| 64     | 1.30                        | 0.120    | 0.14          | 0.79      | 76                             | 834               | 70   | 9 300               | 1 819.4                    | 1973         | 82 12                          |
| 64     | 3.40                        | 0.090    | 0.27          | 0.79      | 82                             | 834               | 60   | 9 500               | 1 776.1                    | 1981         | 83 01                          |
| 64     | 2.70                        | 0.110    | 0.18          | 0.80      | 70                             | 847               | 70   | 16 572              | 1 795.9                    | 1984         | 84 11                          |
| 1 110  |                             |          |               |           | 93                             | 834               | 70   | 16 408              | 1 780.7                    | 1971         | 85 12                          |
| 720    | 3.53                        | 0.120    | 0.19          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 390    | 2.77                        | 0.136    | 0.14          | 0.79      |                                |                   |      |                     |                            |              |                                |
| 256    | 1.03                        | 0.072    | 0.25          | 0.83      | 58                             | 827               | 58   | 9 634               | 1 697.7                    | 1984         | 85 12                          |
| 64     | 1.00                        | 0.061    | 0.25          | 0.83      | 58                             | 827               | 58   | 9 730               | 1 812.4                    | 1984         | 85 12                          |
| 64     | 2.42                        | 0.130    | 0.25          | 0.70      | 89                             | 870               | 66   | 16 200              | 1 940.7                    | 1976         | 84 12 - GPP                    |
| 64     | 2.40                        | 0.100    | 0.42          | 0.84      | 67                             | 813               | 62   | 13 268              | 1 681.2                    | 1982         | 83 08 - SUSP 84 08             |
| 64     | 0.70                        | 0.070    | 0.40          | 0.77      | 80                             | 850               | 60   | 12 935              | 1 667.1                    | 1983         | 85 08                          |
| 64     | 2.20                        | 0.065    | 0.56          | 0.77      | 80                             | 850               | 60   | 13 000              | 1 658.9                    | 1983         | 85 08                          |
| 64     | 3.70                        | 0.100    | 0.33          | 0.77      | 64                             | 835               | 54   | 7 500               | 1 642.2                    | 1983         | 85 08                          |
| 64     | 4.10                        | 0.100    | 0.54          | 0.77      | 64                             | 849               | 67   | 9 000               | 1 648.5                    | 1982         | 85 08                          |
| 320    | 4.23                        | 0.150    | 0.20          | 0.77      | 80                             | 836               | 60   | 13 000              | 1 654.0                    | 1985         | 85 09                          |
| 64     | 0.60                        | 0.080    | 0.21          | 0.80      | 68                             | 840               | 72   | 15 591              | 1 826.0                    | 1984         | 85 07                          |
| 768    | 14.16                       | 0.100    | 0.32          | 0.76      | 112                            | 844               | 70   | 17 555              | 1 912.2                    | 1984         | 85 12                          |
| 64     | 2.77                        | 0.180    | 0.40          | 0.94      | 27                             | 849               | 29   | 5 930               | 900.4                      | 1977         | 85 12 - GPP                    |
| 80     | 1.80                        | 0.220    | 0.43          | 0.94      | 24                             | 851               | 32   | 5 830               | 832.0                      | 1976         | 85 12                          |
| 128    | 2.50                        | 0.210    | 0.48          | 0.94      | 23                             | 851               | 30   | 5 303               | 849.4                      | 1980         | 83 04 - GPP                    |
| 64     | 2.20                        | 0.160    | 0.50          | 0.94      | 23                             | 858               | 32   | 6 009               | 842.5                      | 1979         | 83 12 - SUSP 83 03             |
| 64     | 1.20                        | 0.190    | 0.55          | 0.94      | 20                             | 868               | 31   | 5 587               | 825.7                      | 1976         | 83 08 - GPP                    |
| 64     | 0.70                        | 0.060    | 0.45          | 0.94      | 22                             | 851               | 38   | 3 200               | 808.9                      | 1984         | 85 11                          |
| 65 606 |                             |          |               |           | 25                             | 855               | 36   | 5 720               | 891.5                      | 1946         | 84 12 - GPP                    |
| 25 000 | 1.39                        | 0.260    | 0.68          | 0.94      |                                |                   |      |                     |                            |              | SW=(SW=.50 + SG=.18)=.68       |
| 40 606 | 1.37                        | 0.252    | 0.50          | 0.94      |                                |                   |      |                     |                            |              | SW=(SW=.37 + SG=.13)=.50       |
| 249    | 3.37                        | 0.290    | 0.27          | 0.92      | 28                             | 892               | 33   | 6 140               | 875.7                      | 1958         | 83 12 - GPP                    |
| 65     | 3.66                        | 0.300    | 0.35          | 0.90      | 25                             | 887               | 27   | 6 170               | 813.5                      | 1972         | 73 12 - GPP                    |
| 256    | 2.34                        | 0.220    | 0.35          | 0.87      | 62                             | 870               | 28   | 6 120               | 843.9                      | 1973         | 80 12 - GPP                    |
| 65     | 4.27                        | 0.240    | 0.25          | 0.91      | 34                             | 881               | 34   | 6 210               | 935.4                      | 1975         | 78 12 - GPP                    |
| 256    | 7.00                        | 0.260    | 0.24          | 0.95      | 21                             | 900               | 28   | 5 990               | 827.8                      | 1976         | 83 08 - GPP                    |
| 65     | 8.84                        | 0.300    | 0.20          | 0.94      | 25                             | 910               | 37   | 5 740               | 787.3                      | 1976         | 85 12 - GPP                    |
| 65     | 4.27                        | 0.200    | 0.47          | 0.90      | 35                             | 876               | 30   | 6 040               | 877.2                      | 1977         | 83 12                          |
| 64     | 2.54                        | 0.220    | 0.40          | 0.95      | 18                             | 881               | 30   | 11 520              | 851.8                      | 1979         | 82 12 - SUSP 80 06             |
| 64     | 7.70                        | 0.220    | 0.35          | 0.97      | 38                             | 880               | 17   | 6 205               | 805.1                      | 1979         | 82 12 - GPP                    |
| 480    | 2.62                        | 0.260    | 0.42          | 0.94      | 28                             | 870               | 30   | 5 548               | 787.2                      | 1983         | 84 12                          |

TABLE 2-4

| FIELD<br>POOL                           | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| PROVOST 036-07W4<br>(CONTINUED)         |                                |          |          |                                |                                |                                |                                |                                      |
| LLOYDMINSTER G                          | 100.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LLOYDMINSTER H                          | 120.0                          | 0.10     |          | 12.0                           |                                | 12.0                           | 2.2                            | 9.8                                  |
| LLOYDMINSTER I                          | 60.5                           | 0.05     |          | 3.0                            |                                | 3.0                            | 1.0                            | 2.0                                  |
| LLOYDMINSTER J                          | 35.4                           | 0.10     |          | 3.5                            |                                | 3.5                            | 1.3                            | 2.2                                  |
| LLOYDMINSTER K                          | 746.0                          | 0.05     |          | 37.3                           |                                | 37.3                           | 5.6                            | 31.7                                 |
| LLOYDMINSTER L                          | 95.5                           | 0.05     |          | 4.8                            |                                | 4.8                            | 0.4                            | 4.4                                  |
| LLOYDMINSTER M                          | 33.3                           | 0.10     |          | 3.3                            |                                | 3.3                            |                                | 3.3                                  |
| LLOYDMINSTER N                          | 398.0                          | 0.05     |          | 19.9                           |                                | 19.9                           |                                | 19.9                                 |
| CUMMINGS A                              | 2 500.0                        | 0.10     |          | 250.0                          |                                | 250.0                          | 136.6                          | 113.4                                |
| CUMMINGS B                              | 63.0                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| CUMMINGS E                              | 223.0                          | 0.10     |          | 22.3                           |                                | 22.3                           | 0.6                            | 21.7                                 |
| CUMMINGS F                              | 264.0                          | 0.10     |          | 26.4                           |                                | 26.4                           | 6.0                            | 20.4                                 |
| CUMMINGS G                              | 55.7                           | 0.10     |          | 5.6                            |                                | 5.6                            | 5.6                            |                                      |
| CUMMINGS I                              | 67.0                           | 0.10     |          | 6.7                            |                                | 6.7                            | 3.9                            | 2.8                                  |
| LOWER MANNVILLE A                       | 226.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LOWER MANNVILLE D                       | 257.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LOWER MANNVILLE L                       | 72.9                           | 0.10     |          | 7.3                            |                                | 7.3                            | 4.7                            | 2.6                                  |
| LOWER MANNVILLE P                       | 152.0                          | 0.10     |          | 15.2                           |                                | 15.2                           | 4.0                            | 11.2                                 |
| LOWER MANNVILLE W                       | 430.0                          | 0.10     |          | 43.0                           |                                | 43.0                           | 2.6                            | 40.4                                 |
| LOWER MANNVILLE AA                      | 98.1                           | 0.10     |          | 9.8                            |                                | 9.8                            | 2.4                            | 7.4                                  |
| DINA A                                  | 2 210.0                        | 0.10     |          | 221.0                          |                                | 221.0                          | 50.7                           | 170.3                                |
| D-1 A                                   | 20.7                           | 0.10     |          | 2.1                            |                                | 2.1                            | 0.1                            | 2.0                                  |
| D-2 A                                   | 119.0                          | <0.01    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| RACOSTA 031-11W4                        |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                                | 94.3                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| UPPER MANNVILLE A                       | 276.0                          | 0.10     |          | 27.6                           |                                | 27.6                           | 0.6                            | 27.0                                 |
| BASAL QUARTZ A                          | 750.0                          | 0.10     |          | 75.0                           |                                | 75.0                           | 22.2                           | 52.8                                 |
| RAINBOW 109-05W6                        |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT B                           | 373.0                          | 0.10     |          | 37.3                           |                                | 37.3                           | 3.2                            | 34.1                                 |
| SULPHUR POINT B                         | 374.0                          | 0.15     |          | 56.1                           |                                | 56.1                           | 9.2                            | 46.9                                 |
| SULPHUR POINT C                         | 397.0                          | 0.08     |          | 31.8                           |                                | 31.8                           | 26.1                           | 5.7                                  |
| SULPHUR POINT E                         | 127.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| SULPHUR POINT F                         | 855.0                          | 0.20     |          | 171.0                          |                                | 171.0                          | 118.7                          | 52.3                                 |
| SULPHUR POINT I                         | 292.0                          | 0.03     |          | 8.8                            |                                | 8.8                            | 6.5                            | 2.3                                  |
| SULPHUR POINT L                         | 130.0                          | 0.10     |          | 13.0                           |                                | 13.0                           | 4.4                            | 8.6                                  |
| SULPHUR POINT O                         | 604.0                          | 0.20     |          | 121.0                          |                                | 121.0                          | 57.8                           | 63.2                                 |
| MUSKEG A                                | 639.0                          | 0.08     |          | 51.1                           |                                | 51.1                           | 44.6                           | 6.5                                  |
| MUSKEG B                                | 54.7                           | <0.13    |          | 6.7                            |                                | 6.7                            | 6.7                            |                                      |
| MUSKEG C                                | 795.0                          | 0.20     |          | 159.0                          |                                | 159.0                          | 125.8                          | 33.2                                 |
| MUSKEG D                                | 300.0                          | 0.02     |          | 6.0                            |                                | 6.0                            | 5.9                            | 0.1                                  |
| MUSKEG F                                | 3 180.0                        | 0.15     |          | 477.0                          |                                | 477.0                          | 259.1                          | 217.9                                |
| MUSKEG G                                | 159.0                          | <0.04    |          | 5.5                            |                                | 5.5                            | 5.5                            |                                      |
| MUSKEG I                                | 1 430.0                        | 0.25     |          | 358.0                          |                                | 358.0                          | 183.5                          | 174.5                                |
| MUSKEG J                                | 248.0                          | 0.08     |          | 19.8                           |                                | 19.8                           | 11.9                           | 7.9                                  |
| MUSKEG K                                | 1 050.0                        | 0.15     |          | 159.0                          |                                | 159.0                          | 28.2                           | 130.8                                |
| MUSKEG M                                | 115.0                          | 0.15     |          | 17.3                           |                                | 17.3                           | 6.2                            | 11.1                                 |
| MUSKEG N                                | 732.0                          | 0.15     |          | 110.0                          |                                | 110.0                          | 15.5                           | 94.5                                 |
| MUSKEG O                                | 6 280.0                        | 0.13     |          | 816.0                          |                                | 816.0                          | 97.8                           | 718.2                                |
| MUSKEG P                                | 135.0                          | 0.15     |          | 20.3                           |                                | 20.3                           | 3.0                            | 17.3                                 |
| MUSKEG R                                | 52.5                           | <0.02    |          | 0.7                            |                                | 0.7                            |                                | 0.7                                  |
| MUSKEG S                                | 715.0                          | 0.20     |          | 143.0                          |                                | 143.0                          | 102.5                          | 40.5                                 |
| MUSKEG T                                | 612.0                          | 0.20     |          | 122.0                          |                                | 122.0                          | 17.2                           | 104.8                                |
| KEG RIVER A<br>SOLVENT FLOOD            | 14 300.0                       | 0.50     | 0.38     | 7 150.0                        | 5 430.0                        | 12 600.0                       | 8 546.3                        | 4 053.7                              |
| KEG RIVER B<br>SOLVENT FLOOD            | 43 000.0                       | 0.40     | 0.32     | 17 200.0                       | 13 600.0                       | 30 800.0                       | 18 257.6                       | 12 542.4                             |
| KEG RIVER D<br>SOLVENT FLOOD            | 1 130.0                        | 0.58     | 0.24     | 655.0                          | 270.0                          | 925.0                          | 591.1                          | 333.9                                |
| KEG RIVER E<br>SOLVENT FLOOD            | 3 970.0                        | <0.46    | 0.40     | 1 800.0                        | 1 590.0                        | 3 390.0                        | 1 621.9                        | 1 768.1                              |
| KEG RIVER F<br>WATER FLOOD              | 31 800.0                       | 0.53     | 0.07     | 16 900.0                       | 2 220.0                        | 19 100.0                       | 14 555.3                       | 4 544.7                              |
| KEG RIVER G<br>SOLVENT FLOOD            | 2 380.0                        | 0.40     | 0.37     | 953.0                          | 882.0                          | 1 840.0                        | 1 278.4                        | 561.6                                |
| KEG RIVER H<br>SOLVENT FLOOD            | 2 350.0                        | 0.40     | 0.35     | 938.0                          | 821.0                          | 1 760.0                        | 1 332.2                        | 427.8                                |
| KEG RIVER I TOTAL<br>SOLVENT FLOOD AREA | 6 130.0                        |          |          | 2 760.0                        | 810.0                          | 3 570.0                        | 2 406.1                        | 1 163.9                              |
| WATER FLOOD AREA                        | 1 880.0                        | 0.45     | 0.25     | 846.0                          | 470.0                          | 1 320.0                        |                                |                                      |
|   | 4 250.0                        | 0.45     | 0.08     | 1 910.0                        | 340.0                          | 2 250.0                        |                                |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 16    | 3.50                        | 0.330    | 0.40          | 0.90      | 42                             | 964               | 30   | 6 165               | 905.8                      | 1984         | 84 11 - ABAND 84 09            |
| 32    | 2.00                        | 0.300    | 0.30          | 0.10      | 27                             | 902               | 28   | 5 179               | 791.0                      | 1984         | 84 11                          |
| 32    | 1.00                        | 0.300    | 0.30          | 0.90      | 42                             | 902               | 30   | 5 094               | 789.0                      | 1984         | 84 05                          |
| 32    | 0.70                        | 0.270    | 0.35          | 0.90      | 42                             | 902               | 30   | 4 906               | 792.7                      | 1984         | 84 05                          |
| 32    | 9.00                        | 0.320    | 0.10          | 0.90      | 42                             | 902               | 30   | 5 205               | 796.0                      | 1984         | 84 05                          |
| 16    | 3.70                        | 0.280    | 0.40          | 0.96      | 25                             | 937               | 30   | 5 520               | 782.9                      | 1984         | 85 03                          |
| 16    | 1.10                        | 0.300    | 0.30          | 0.90      | 30                             | 902               | 29   | 5 510               | 780.9                      | 1984         | 85 08                          |
| 64    | 3.50                        | 0.300    | 0.39          | 0.97      | 11                             | 970               | 30   | 3 100               | 794.3                      | 1984         | 85 11                          |
| 1 354 | 1.67                        | 0.190    | 0.40          | 0.97      | 27                             | 876               | 28   | 6 130               | 834.8                      | 1973         | 85 12                          |
| 64    | 1.00                        | 0.170    | 0.40          | 0.96      | 18                             | 888               | 28   | 7 180               | 946.2                      | 1949         | 83 12 - SUSP 80 05             |
| 64    | 2.00                        | 0.300    | 0.40          | 0.97      | 9                              | 865               | 35   | 4 959               | 919.0                      | 1983         | 84 03                          |
| 64    | 2.10                        | 0.270    | 0.25          | 0.97      | 9                              | 875               | 33   | 5 468               | 796.1                      | 1983         | 84 03                          |
| 32    | 1.50                        | 0.240    | 0.48          | 0.93      | 9                              | 866               | 33   | 5 568               | 832.0                      | 1983         | 84 09                          |
| 48    | 0.74                        | 0.280    | 0.31          | 0.97      | 25                             | 910               | 29   | 5 200               | 782.9                      | 1984         | 85 12                          |
| 64    | 4.31                        | 0.130    | 0.30          | 0.90      | 43                             | 874               | 38   | 7 171               | 976.9                      | 1977         | 78 08 - ABAND 78 06            |
| 64    | 3.40                        | 0.200    | 0.35          | 0.91      | 35                             | 892               | 32   | 6 770               | 1 000.8                    | 1978         | 83 12 - SUSP 81 12             |
| 64    | 1.00                        | 0.230    | 0.45          | 0.90      | 42                             | 861               | 32   | 6 878               | 1 030.5                    | 1980         | 81 06 - GPP                    |
| 64    | 2.00                        | 0.240    | 0.45          | 0.90      |                                | 850               | 38   | 7 163               | 1 064.2                    | 1981         | 82 03                          |
| 64    | 5.30                        | 0.240    | 0.45          | 0.96      | 15                             | 865               | 30   | 7 036               | 1 049.2                    | 1982         | 83 05                          |
| 64    | 1.70                        | 0.200    | 0.51          | 0.92      | 33                             | 871               | 31   | 5 000               | 1 051.6                    | 1984         | 85 01                          |
| 398   | 3.60                        | 0.260    | 0.34          | 0.90      | 38                             | 894               | 31   | 5 430               | 792.3                      | 1982         | 84 12                          |
| 64    | 2.20                        | 0.030    | 0.45          | 0.89      | 41                             | 903               | 41   | 7 908               | 1 016.2                    | 1980         | 84 05                          |
| 65    | 5.49                        | 0.070    | 0.40          | 0.80      |                                |                   |      |                     | 1 131.4                    | 1974         | 76 12 - SUSP 75 12             |
| 64    | 2.47                        | 0.134    | 0.50          | 0.89      | 37                             | 852               | 27   | 5 494               | 895.1                      | 1980         | 84 12 - SUSP 82 02             |
| 64    | 4.50                        | 0.180    | 0.38          | 0.86      | 55                             | 871               | 39   | 5 707               | 1 048.4                    | 1981         | 84 05                          |
| 256   | 2.54                        | 0.240    | 0.44          | 0.86      | 65                             | 868               | 36   | 8 755               | 1 079.1                    | 1979         | 82 09                          |
| 64    | 9.80                        | 0.110    | 0.40          | 0.90      | 45                             | 854               | 40   | 12 550              | 1 241.6                    | 1970         | 84 03                          |
| 140   | 7.83                        | 0.070    | 0.35          | 0.75      | 101                            | 834               | 72   | 14 730              | 1 543.5                    | 1967         | 85 08                          |
| 109   | 6.77                        | 0.090    | 0.20          | 0.75      | 121                            | 839               | 68   | 15 355              | 1 611.0                    | 1967         | 70 03 - GPP - MRL              |
| 65    | 6.10                        | 0.055    | 0.25          | 0.78      | 89                             | 849               | 74   | 14 560              | 1 636.5                    | 1967         | 71 03 - SUSP 71 03             |
| 182   | 8.14                        | 0.095    | 0.20          | 0.76      | 91                             | 825               | 74   | 14 170              | 1 550.5                    | 1970         | 84 12                          |
| 64    | 11.36                       | 0.081    | 0.34          | 0.75      | 95                             | 829               | 86   | 13 886              | 1 550.8                    | 1975         | 79 12 - GPP                    |
| 65    | 5.79                        | 0.080    | 0.45          | 0.79      | 75                             | 844               | 94   | 15 310              | 1 671.8                    | 1969         | 78 01 - GPP                    |
| 41    | 17.37                       | 0.112    | 0.09          | 0.83      | 65                             | 839               | 81   | 16 980              | 1 739.3                    | 1967         | 68 07                          |
| 119   | 7.22                        | 0.097    | 0.08          | 0.83      | 56                             | 844               | 86   | 15 440              | 1 762.7                    | 1966         | 82 12 - GPP                    |
| 16    | 11.43                       | 0.050    | 0.20          | 0.74      | 107                            | 820               | 82   | 15 500              | 1 659.9                    | 1966         | 76 12 - SUSP 76 11             |
| 75    | 16.12                       | 0.098    | 0.12          | 0.76      | 92                             | 834               | 84   | 16 580              | 1 580.1                    | 1967         | 83 12                          |
| 81    | 9.14                        | 0.060    | 0.10          | 0.75      | 105                            | 834               | 77   | 14 586              | 1 625.5                    | 1967         | 84 12 - SUSP 83 07             |
| 970   | 9.14                        | 0.057    | 0.15          | 0.74      | 103                            | 825               | 88   | 15 480              | 1 639.5                    | 1965         | 76 08 - GPP                    |
| 81    | 5.76                        | 0.050    | 0.15          | 0.80      | 56                             | 834               | 86   | 14 550              | 1 604.2                    | 1968         | 79 04 - ABAND 79 04            |
| 164   | 20.39                       | 0.068    | 0.17          | 0.76      | 81                             | 834               | 84   | 14 930              | 1 593.5                    | 1967         | 85 12                          |
| 81    | 6.10                        | 0.080    | 0.15          | 0.74      | 108                            | 825               | 88   | 16 045              | 1 727.0                    | 1975         | 82 12 - GPP                    |
| 64    | 19.00                       | 0.120    | 0.10          | 0.81      | 71                             | 884               | 76   | 17 060              | 1 717.1                    | 1978         | 79 07                          |
| 64    | 2.50                        | 0.100    | 0.08          | 0.78      | 87                             | 845               | 84   | 15 333              | 1 761.8                    | 1983         | 83 09                          |
| 128   | 13.17                       | 0.068    | 0.16          | 0.76      | 95                             | 834               | 85   | 20 210              | 1 849.9                    | 1982         | 85 12                          |
| 704   | 17.47                       | 0.075    | 0.17          | 0.82      | 57                             | 835               | 80   | 18 618              | 1 838.3                    | 1983         | 85 05 - GPP                    |
| 64    | 5.80                        | 0.060    | 0.20          | 0.76      | 85                             | 828               | 84   | 16 304              | 1 804.0                    | 1965         | 84 08                          |
| 64    | 3.00                        | 0.060    | 0.40          | 0.76      | 95                             | 838               | 85   | 14 617              | 1 621.5                    | 1984         | 85 02 - SUSP 85 12             |
| 49    | 20.42                       | 0.097    | 0.12          | 0.84      | 50                             | 829               | 82   | 17 310              | 1 777.9                    | 1967         | 68 07 - GPP                    |
| 128   | 11.86                       | 0.060    | 0.20          | 0.84      | 56                             | 833               | 81   | 20 690              | 1 866.7                    | 1968         | 85 07 - GPP                    |
| 253   | 90.22                       | 0.101    | 0.10          | 0.69      | 141                            | 811               | 84   | 18 090              | 1 944.9                    | 1965         | 70 02 - I.S. NO. 1             |
| 1 090 | 69.12                       | 0.080    | 0.13          | 0.82      | 62                             | 834               | 85   | 17 170              | 1 820.0                    | 1965         | 84 07                          |
| 34    | 45.72                       | 0.100    | 0.08          | 0.78      | 77                             | 825               | 82   | 17 780              | 1 923.3                    | 1966         | 67 12 - I.S. NO. 1             |
| 69    | 69.49                       | 0.120    | 0.09          | 0.76      | 95                             | 829               | 83   | 17 130              | 1 808.4                    | 1966         | 67 12 - I.S. NO. 1             |
| 1 644 | 73.30                       | 0.045    | 0.15          | 0.69      | 135                            | 815               | 85   | 17 480              | 1 855.6                    | 1966         | 75 05                          |
| 65    | 68.58                       | 0.080    | 0.08          | 0.72      | 85                             | 829               | 83   | 17 860              | 1 874.8                    | 1966         | 67 12 - I.S. NO. 1             |
| 19    | 176.00                      | 0.094    | 0.08          | 0.80      | 78                             | 829               | 84   | 20 350              | 1 893.1                    | 1966         | 83 04 - I.S. NO. 1             |
| 415   |                             |          |               |           | 122                            | 820               | 79   | 16 450              | 1 739.2                    | 1966         | 85 03                          |
| 146   | 38.87                       | 0.055    | 0.15          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 269   | 47.60                       | 0.055    | 0.85          | 0.71      |                                |                   |      |                     |                            |              |                                |



TABLE 2-4

| FIELD<br>POOL                   | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                 | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                 |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                 | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| RAINBOW 109-05W6<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER K                     | 1 780.0                        | 0.35     |          | 623.0                          |                                | 623.0                          | 405.5                          | 217.5                                |
| KEG RIVER M                     | 477.0                          | 0.35     |          | 167.0                          |                                | 167.0                          | 111.8                          | 55.2                                 |
| KEG RIVER N                     | 2 000.0                        | 0.30     | 0.10     | 600.0                          | 200.0                          | 800.0                          | 595.4                          | 204.6                                |
| GAS FLOOD                       |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER D                     | 6 210.0                        | 0.40     | 0.40     | 2 480.0                        | 2 480.0                        | 4 960.0                        | 3 734.1                        | 1 225.9                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER P                     | 795.0                          | 0.30     |          | 239.0                          |                                | 239.0                          | 148.6                          | 90.4                                 |
| KEG RIVER R                     | 71.0                           | <0.06    |          | 3.9                            |                                | 3.9                            | 3.9                            |                                      |
| KEG RIVER S                     | 2 110.0                        | 0.38     |          | 802.0                          |                                | 802.0                          | 504.7                          | 297.3                                |
| KEG RIVER T                     | 3 180.0                        | <0.42    | 0.40     | 1 330.0                        | 1 270.0                        | 2 600.0                        | 1 726.2                        | 873.8                                |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER U                     | 3 250.0                        | 0.26     |          | 845.0                          |                                | 845.0                          | 671.5                          | 173.5                                |
| KEG RIVER V                     | 84.7                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| KEG RIVER W                     | 340.0                          | 0.15     |          | 51.0                           |                                | 51.0                           | 30.4                           | 20.6                                 |
| KEG RIVER X                     | 535.0                          | 0.50     |          | 318.0                          |                                | 318.0                          | 212.0                          | 105.0                                |
| KEG RIVER Y                     | 28.9                           | <0.06    |          | 1.5                            |                                | 1.5                            | 1.5                            |                                      |
| KEG RIVER Z                     | 1 270.0                        | 0.32     | 0.28     | 406.0                          | 356.0                          | 762.0                          | 575.3                          | 186.7                                |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER AA                    | 15 900.0                       | 0.57     | 0.22     | 9 060.0                        | 3 380.0                        | 12 400.0                       | 6 393.7                        | 6 006.3                              |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER DD                    | 585.0                          | 0.15     |          | 87.8                           |                                | 87.8                           | 75.3                           | 12.5                                 |
| KEG RIVER EE                    | 2 780.0                        | 0.35     | 0.23     | 973.0                          | 639.0                          | 1 610.0                        | 1 137.1                        | 472.9                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER FF                    | 1 130.0                        | 0.42     | 0.40     | 474.0                          | 451.0                          | 925.0                          | 876.4                          | 48.6                                 |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER GG                    | 1 300.0                        | 0.47     |          | 610.0                          |                                | 610.0                          | 385.2                          | 224.8                                |
| KEG RIVER HH                    | 752.0                          | 0.02     |          | 14.8                           |                                | 14.8                           | 3.2                            | 11.6                                 |
| KEG RIVER II                    | 3 490.0                        | 0.50     | 0.25     | 1 750.0                        | 873.0                          | 2 620.0                        | 1 679.8                        | 940.2                                |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER JJ                    | 1 360.0                        | <0.43    | 0.12     | 583.0                          | 164.0                          | 747.0                          | 495.6                          | 251.4                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER KK                    | 787.0                          | 0.41     | 0.09     | 323.0                          | 70.9                           | 394.0                          | 200.9                          | 193.1                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER LL                    | 1 590.0                        | 0.15     |          | 238.0                          |                                | 238.0                          | 163.7                          | 74.3                                 |
| KEG RIVER MM                    | 1 840.0                        | 0.35     |          | 644.0                          |                                | 644.0                          | 163.8                          | 480.2                                |
| KEG RIVER NN                    | 679.0                          | 0.25     |          | 170.0                          |                                | 170.0                          | 102.9                          | 67.1                                 |
| KEG RIVER OD                    | 733.0                          | 0.35     | 0.12     | 257.0                          | 88.0                           | 345.0                          | 218.0                          | 127.0                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER PP TOTAL              | 570.0                          |          |          | 262.0                          | 39.9                           | 302.0                          | 191.6                          | 110.4                                |
| PRIMARY AREA                    | 285.0                          | 0.46     |          | 131.0                          |                                | 131.0                          |                                |                                      |
| WATER FLOOD AREA                | 285.0                          | 0.46     | 0.14     | 131.0                          | 39.9                           | 171.0                          |                                |                                      |
| KEG RIVER QQ                    | 1 210.0                        | 0.35     | 0.18     | 423.0                          | 218.0                          | 641.0                          | 345.5                          | 295.5                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER RR                    | 413.0                          | 0.40     | 0.13     | 165.0                          | 53.7                           | 219.0                          | 200.4                          | 18.6                                 |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER SS                    | 477.0                          | 0.10     |          | 47.7                           |                                | 47.7                           | 28.4                           | 19.3                                 |
| KEG RIVER TT                    | 41.5                           | <0.02    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| KEG RIVER VV                    | 319.0                          | 0.36     | 0.11     | 115.0                          | 35.1                           | 150.0                          | 116.1                          | 33.9                                 |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER WW                    | 477.0                          | 0.20     |          | 95.4                           |                                | 95.4                           | 54.1                           | 41.3                                 |
| KEG RIVER XX                    | 183.0                          | 0.35     |          | 64.0                           |                                | 64.0                           | 25.6                           | 38.4                                 |
| KEG RIVER ZZ                    | 300.0                          | 0.40     |          | 120.0                          |                                | 120.0                          | 85.6                           | 34.4                                 |
| KEG RIVER BBB                   | 600.0                          | 0.30     |          | 180.0                          |                                | 180.0                          | 68.4                           | 111.6                                |
| KEG RIVER CCC                   | 556.0                          | 0.35     |          | 195.0                          |                                | 195.0                          | 131.8                          | 63.2                                 |
| KEG RIVER DDD                   | 928.0                          | 0.40     | 0.11     | 372.0                          | 102.0                          | 474.0                          | 153.8                          | 320.2                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER EEE                   | 1 910.0                        | 0.40     | 0.30     | 764.0                          | 572.0                          | 1 340.0                        | 695.7                          | 644.3                                |
| SOLVENT FLOOD                   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER GGG                   | 569.0                          | 0.40     |          | 228.0                          |                                | 228.0                          | 25.9                           | 202.1                                |
| KEG RIVER HHH                   | 254.0                          | 0.15     |          | 38.1                           |                                | 38.1                           | 23.5                           | 14.6                                 |
| KEG RIVER III                   | 187.0                          | 0.40     |          | 74.8                           |                                | 74.8                           | 0.8                            | 74.0                                 |
| KEG RIVER JJJ                   | 195.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| KEG RIVER KKK                   | 159.0                          | 0.35     |          | 55.6                           |                                | 55.6                           | 30.5                           | 25.1                                 |
| KEG RIVER LLL                   | 378.0                          | 0.30     |          | 113.0                          |                                | 113.0                          | 34.2                           | 78.8                                 |
| KEG RIVER MMM                   | 159.0                          | <0.01    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| KEG RIVER NNN                   | 375.0                          | <0.01    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| KEG RIVER ODO                   | 234.0                          | <0.20    | 0.08     | 45.1                           | 18.7                           | 63.8                           | 63.8                           |                                      |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER QQQ                   | 1 750.0                        | 0.15     |          | 263.0                          |                                | 263.0                          | 177.8                          | 85.2                                 |
| KEG RIVER RRR                   | 607.0                          | 0.40     | 0.15     | 243.0                          | 91.0                           | 334.0                          | 198.7                          | 135.3                                |
| WATER FLOOD                     |                                |          |          |                                |                                |                                |                                |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS

| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 376  | 24.72                       | 0.035    | 0.26          | 0.74      | 106                            | 815               | 88   | 15 890              | 1 786.7                    | 1966         | 70 02                          |
| 106  | 16.40                       | 0.047    | 0.22          | 0.75      | 106                            | 797               | 84   | 15 620              | 1 680.1                    | 1966         | 68 02 - GPP                    |
| 425  | 28.30                       | 0.030    | 0.28          | 0.77      | 87                             | 815               | 84   | 15 860              | 1 839.8                    | 1966         | 85 05 - I.S. NO. 2             |
| 281  | 61.26                       | 0.060    | 0.13          | 0.69      | 135                            | 815               | 84   | 16 550              | 1 845.0                    | 1966         | 68 02 - I.S. NO. 1             |
| 40   | 33.71                       | 0.085    | 0.11          | 0.77      | 88                             | 834               | 83   | 16 730              | 1 875.7                    | 1967         | 82 12 - GPP                    |
| 20   | 12.19                       | 0.045    | 0.20          | 0.80      | 76                             | 855               | 87   | 15 550              | 1 727.3                    | 1967         | 78 10 - SUSP 77 08             |
| 342  | 17.75                       | 0.055    | 0.19          | 0.78      | 87                             | 825               | 85   | 15 480              | 1 734.9                    | 1966         | 84 12 - GPP                    |
| 87   | 52.73                       | 0.097    | 0.08          | 0.78      | 78                             | 844               | 86   | 16 690              | 1 769.4                    | 1967         | 71 01 - I.S. NO. 2             |
| 244  | 27.10                       | 0.074    | 0.16          | 0.79      | 79                             | 844               | 88   | 15 560              | 1 738.0                    | 1966         | 80 07                          |
| 65   | 5.49                        | 0.048    | 0.29          | 0.70      | 99                             | 844               | 87   | 14 960              | 1 502.4                    | 1966         | 68 05 - SUSP 68 04             |
| 38   | 21.95                       | 0.066    | 0.19          | 0.77      | 93                             | 811               | 77   | 15 780              | 1 864.5                    | 1967         | 81 12 - GPP                    |
| 68   | 17.37                       | 0.090    | 0.13          | 0.69      | 131                            | 815               | 87   | 15 510              | 1 624.9                    | 1966         | 81 07                          |
| 65   | 5.79                        | 0.020    | 0.45          | 0.70      | 126                            | 820               | 87   | 15 200              | 1 561.5                    | 1966         | 70 11 - SUSP 70 01             |
| 95   | 55.17                       | 0.040    | 0.20          | 0.76      | 86                             | 834               | 86   | 15 580              | 1 595.6                    | 1967         | 83 12 - I.S. NO. 2             |
| 259  | 97.35                       | 0.092    | 0.11          | 0.77      | 92                             | 829               | 84   | 16 090              | 1 684.0                    | 1967         | 76 03 - I.S. NO. 11            |
| 134  | 18.47                       | 0.040    | 0.25          | 0.79      | 80                             | 820               | 87   | 15 840              | 1 797.7                    | 1967         | 82 12                          |
| 148  | 45.04                       | 0.063    | 0.14          | 0.77      | 88                             | 834               | 86   | 15 170              | 1 686.5                    | 1967         | 84 12 - I.S. NO. 11            |
| 44   | 47.85                       | 0.078    | 0.10          | 0.77      | 86                             | 839               | 87   | 15 820              | 1 716.6                    | 1967         | 69 03 - I.S. NO. 2             |
| 191  | 29.14                       | 0.040    | 0.22          | 0.75      | 81                             | 784               | 93   | 15 890              | 1 706.0                    | 1966         | 73 12                          |
| 65   | 42.06                       | 0.046    | 0.25          | 0.80      | 85                             | 820               | 84   | 17 930              | 1 881.5                    | 1967         | 85 12                          |
| 73   | 71.48                       | 0.100    | 0.12          | 0.76      | 85                             | 820               | 89   | 17 440              | 1 812.0                    | 1967         | 84 01                          |
| 51   | 48.77                       | 0.085    | 0.10          | 0.72      | 110                            | 815               | 90   | 16 990              | 1 817.5                    | 1967         | 73 09 - I.S. NO. 11            |
| 154  | 22.46                       | 0.040    | 0.25          | 0.76      | 74                             | 779               | 94   | 16 290              | 1 741.9                    | 1967         | 73 04 - I.S. NO. 11            |
| 304  | 35.97                       | 0.026    | 0.30          | 0.80      | 68                             | 797               | 86   | 15 480              | 1 603.0                    | 1967         | 69 02                          |
| 518  | 25.10                       | 0.027    | 0.32          | 0.77      | 81                             | 855               | 84   | 15 070              | 1 579.5                    | 1967         | 84 06 - GPP                    |
| 166  | 13.01                       | 0.053    | 0.23          | 0.77      | 70                             | 806               | 86   | 15 310              | 1 612.8                    | 1967         | 82 12 - GPP                    |
| 167  | 11.60                       | 0.060    | 0.17          | 0.76      | 92                             | 825               | 85   | 15 310              | 1 642.2                    | 1967         | 85 12                          |
| 90   |                             |          |               |           | 106                            | 784               | 94   | 15 490              | 1 668.5                    | 1968         | 84 12                          |
| 45   | 38.60                       | 0.030    | 0.22          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 45   | 38.60                       | 0.030    | 0.22          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 112  | 39.32                       | 0.045    | 0.21          | 0.77      | 94                             | 839               | 85   | 15 240              | 1 673.0                    | 1968         | 69 07 - I.S. NO. 11            |
| 39   | 24.40                       | 0.070    | 0.15          | 0.73      | 98                             | 779               | 93   | 16 000              | 1 739.2                    | 1968         | 84 12 - I.S. NO. 11            |
| 47   | 28.65                       | 0.054    | 0.20          | 0.82      | 57                             | 834               | 87   | 15 240              | 1 710.8                    | 1968         | 75 12 - GPP                    |
| 36   | 10.15                       | 0.023    | 0.35          | 0.75      | 108                            | 797               | 83   | 15 530              | 1 670.6                    | 1967         | 77 09 - SUSP 77 11             |
| 71   | 22.00                       | 0.040    | 0.25          | 0.68      | 74                             | 834               | 73   | 16 130              | 1 750.5                    | 1968         | 83 12 - I.S. NO. 11            |
| 50   | 58.49                       | 0.030    | 0.30          | 0.78      | 81                             | 849               | 82   | 15 170              | 1 509.9                    | 1968         | 84 12 - GPP                    |
| 39   | 18.87                       | 0.040    | 0.20          | 0.77      | 75                             | 825               | 84   | 15 480              | 1 747.4                    | 1968         | 71 01 - GPP                    |
| 45   | 27.43                       | 0.040    | 0.22          | 0.78      | 84                             | 834               | 87   | 15 070              | 1 513.3                    | 1968         | 84 12                          |
| 106  | 30.25                       | 0.032    | 0.24          | 0.77      | 95                             | 839               | 82   | 15 720              | 1 574.3                    | 1968         | 84 12                          |
| 41   | 39.93                       | 0.050    | 0.15          | 0.79      | 89                             | 839               | 80   | 15 860              | 1 562.7                    | 1968         | 70 02                          |
| 61   | 40.63                       | 0.054    | 0.15          | 0.82      | 55                             | 834               | 87   | 15 200              | 1 574.6                    | 1968         | 70 12 - I.S. NO. 11            |
| 24   | 64.01                       | 0.168    | 0.05          | 0.77      | 95                             | 839               | 86   | 14 490              | 1 855.3                    | 1968         | 72 02 - I.S. NO. 1             |
| 80   | 22.86                       | 0.050    | 0.19          | 0.77      | 85                             | 834               | 84   | 15 030              | 1 504.0                    | 1968         | 73 08                          |
| 303  | 9.69                        | 0.018    | 0.40          | 0.80      | 68                             | 797               | 84   | 15 490              | 1 590.1                    | 1967         | 82 12 - GPP                    |
| 38   | 20.33                       | 0.042    | 0.25          | 0.77      | 85                             | 834               | 82   | 15 070              | 1 514.9                    | 1969         | 85 04 - SUSP 85 03             |
| 28   | 46.33                       | 0.026    | 0.30          | 0.82      | 68                             | 839               | 86   | 15 110              | 1 532.2                    | 1969         | 71 01 - SUSP 70 07             |
| 11   | 40.84                       | 0.053    | 0.15          | 0.79      | 82                             | 834               | 88   | 15 700              | 1 892.8                    | 1969         | 75 04 - GPP                    |
| 69   | 35.84                       | 0.025    | 0.27          | 0.84      | 55                             | 844               | 87   | 15 110              | 1 523.4                    | 1969         | 70 01                          |
| 12   | 30.63                       | 0.066    | 0.18          | 0.79      | 66                             | 834               | 86   | 15 400              | 1 875.7                    | 1969         | 75 06 - SUSP 73 12             |
| 65   | 33.83                       | 0.033    | 0.35          | 0.80      | 67                             | 839               | 79   | 15 240              | 1 604.5                    | 1969         | 82 12 - SUSP 70 06             |
| 81   | 9.91                        | 0.045    | 0.20          | 0.81      | 64                             | 811               | 97   | 15 860              | 1 748.9                    | 1970         | 83 12 - I.S. NO. 11            |
| 383  | 13.81                       | 0.053    | 0.22          | 0.80      | 55                             | 811               | 90   | 15 280              | 1 609.6                    | 1968         | 79 12 - GPP                    |
| 80   | 16.20                       | 0.070    | 0.12          | 0.76      | 92                             | 825               | 88   | 14 910              | 1 621.4                    | 1971         | 85 12                          |



TABLE 2-4

| FIELD<br>POOL                           | 1                              | 2        | 3        | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>RAINBOW 109-05W6<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER SSS                           | 195.0                          | 0.30     |          | 58.6                           |                                | 58.6                           | 32.7                           | 25.9                                 |
| KEG RIVER TTT                           | 454.0                          | 0.30     |          | 136.0                          |                                | 136.0                          | 80.5                           | 55.5                                 |
| KEG RIVER UUU                           | 111.0                          | 0.30     |          | 33.4                           |                                | 33.4                           | 15.2                           | 18.2                                 |
| KEG RIVER VVV                           | 197.0                          | 0.10     |          | 13.7                           |                                | 13.7                           | 2.6                            | 11.1                                 |
| KEG RIVER WWW                           | 377.0                          | 0.15     |          | 56.6                           |                                | 56.6                           | 11.7                           | 44.9                                 |
| KEG RIVER XXX                           | 233.0                          | 0.30     |          | 69.9                           |                                | 69.9                           | 2.9                            | 67.0                                 |
| KEG RIVER YYY                           | 140.0                          | 0.20     |          | 28.0                           |                                | 28.0                           | 9.2                            | 18.8                                 |
| KEG RIVER ZZZ                           | 205.0                          | 0.35     |          | 71.8                           |                                | 71.8                           | 1.1                            | 70.7                                 |
| KEG RIVER A2A                           | 323.0                          | 0.30     |          | 96.9                           |                                | 96.9                           | 4.7                            | 92.2                                 |
| KEG RIVER B2B                           | 132.0                          | 0.15     |          | 20.0                           |                                | 20.0                           | 1.3                            | 18.7                                 |
| KEG RIVER C2C                           | 2 540.0                        | 0.40     | 0.13     | 1 020.0                        | 331.0                          | 1 350.0                        | 555.6                          | 794.4                                |
| WATER FLOOD                             |                                |          |          |                                |                                |                                |                                |                                      |
| <b>RAINBOW SOUTH<br/>107-09W6</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| SULPHUR POINT B                         | 23.8                           | 0.04     |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| MUSKEG A                                | 37.0                           | <0.24    |          | 8.6                            |                                | 8.6                            | 8.6                            |                                      |
| MUSKEG B                                | 238.0                          | 0.17     |          | 40.5                           |                                | 40.5                           | 17.6                           | 22.9                                 |
| MUSKEG D                                | 157.0                          | 0.30     |          | 47.1                           |                                | 47.1                           | 11.1                           | 36.0                                 |
| MUSKEG F                                | 448.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MUSKEG G                                | 1 220.0                        | 0.15     |          | 183.0                          |                                | 183.0                          | 27.5                           | 155.5                                |
| MUSKEG H                                | 626.0                          | 0.15     |          | 93.9                           |                                | 93.9                           | 48.0                           | 45.9                                 |
| MUSKEG I                                | 518.0                          | 0.15     |          | 77.7                           |                                | 77.7                           | 22.2                           | 55.5                                 |
| MUSKEG J                                | 214.0                          | 0.20     |          | 42.8                           |                                | 42.8                           | 7.0                            | 35.8                                 |
| MUSKEG K                                | 364.0                          | 0.15     |          | 54.6                           |                                | 54.6                           | 11.4                           | 43.2                                 |
| MUSKEG L                                | 130.0                          | 0.25     |          | 32.5                           |                                | 32.5                           | 3.0                            | 29.5                                 |
| MUSKEG M                                | 267.0                          | 0.25     |          | 66.8                           |                                | 66.8                           | 7.4                            | 59.4                                 |
| MUSKEG N                                | 511.0                          | 0.20     |          | 102.0                          |                                | 102.0                          | 5.9                            | 96.1                                 |
| MUSKEG O                                | 499.0                          | 0.15     |          | 74.9                           |                                | 74.9                           | 4.2                            | 70.7                                 |
| MUSKEG P                                | 498.0                          | 0.15     |          | 74.7                           |                                | 74.7                           |                                | 74.7                                 |
| KEG RIVER A                             | 5 720.0                        | 0.46     | 0.08     | 2 630.0                        | 445.0                          | 3 080.0                        | 1 643.9                        | 1 436.1                              |
| WATER FLOOD                             |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER B                             | 6 520.0                        | <0.46    | 0.35     | 2 940.0                        | 2 270.0                        | 5 210.0                        | 3 221.1                        | 1 988.9                              |
| SOLVENT FLOOD                           |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER C                             | 39.6                           | <0.03    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| KEG RIVER D                             | 207.0                          | 0.30     |          | 62.1                           |                                | 62.1                           | 10.8                           | 51.3                                 |
| KEG RIVER E                             | 7 150.0                        | 0.50     | 0.06     | 3 580.0                        | 429.0                          | 4 010.0                        | 2 154.2                        | 1 855.8                              |
| WATER FLOOD                             |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER F                             | 1 010.0                        | 0.15     |          | 152.0                          |                                | 152.0                          | 129.9                          | 22.1                                 |
| KEG RIVER G                             | 3 180.0                        | 0.48     | 0.09     | 1 530.0                        | 286.0                          | 1 820.0                        | 988.6                          | 831.4                                |
| WATER FLOOD                             |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER H                             | 672.0                          | 0.45     |          | 302.0                          |                                | 302.0                          | 291.7                          | 10.3                                 |
| KEG RIVER I                             | 472.0                          | 0.12     |          | 56.6                           |                                | 56.6                           | 56.2                           | 0.4                                  |
| KEG RIVER J                             | 514.0                          | 0.35     |          | 180.0                          |                                | 180.0                          | 35.3                           | 144.7                                |
| KEG RIVER K                             | 173.0                          | 0.45     |          | 77.8                           |                                | 77.8                           | 32.6                           | 45.2                                 |
| KEG RIVER L                             | 95.2                           | 0.45     |          | 42.8                           |                                | 42.8                           | 22.4                           | 20.4                                 |
| KEG RIVER M                             | 154.0                          | 0.25     |          | 38.5                           |                                | 38.5                           | 5.6                            | 32.9                                 |
| KEG RIVER N                             | 5 000.0                        | 0.35     |          | 1 750.0                        |                                | 1 750.0                        | 231.1                          | 1 518.9                              |
| KEG RIVER P                             | 340.0                          | 0.45     |          | 153.0                          |                                | 153.0                          | 41.8                           | 111.2                                |
| KEG RIVER Q                             | 101.0                          | 0.30     |          | 30.0                           |                                | 30.0                           | 7.2                            | 22.8                                 |
| <b>RAINIER 017-15W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC B                           | 100.0                          | 0.10     |          | 10.0                           |                                | 10.0                           | 5.2                            | 4.8                                  |
| <b>RED COULEE 001-17W4</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| MOULTON A                               | 270.0                          | 0.14     | 0.09     | 37.8                           | 24.3                           | 62.1                           | 58.2                           | 3.9                                  |
| WATER FLOOD                             |                                |          |          |                                |                                |                                |                                |                                      |
| MOULTON B TOTAL                         | 993.0                          |          |          | 62.0                           | 96.1                           | 158.0                          | 156.2                          | 1.8                                  |
| PRIMARY AREA                            | 119.0                          | 0.08     |          | 9.5                            |                                | 9.5                            |                                |                                      |
| WATER FLOOD AREA                        | 874.0                          | 0.06     | 0.11     | 52.4                           | 96.1                           | 149.0                          |                                |                                      |
| MOULTON C                               | 540.0                          | 0.23     | 0.13     | 124.0                          | 70.2                           | 194.0                          | 192.3                          | 1.7                                  |
| WATER FLOOD                             |                                |          |          |                                |                                |                                |                                |                                      |
| SUNBURST A                              | 299.0                          | <0.04    |          | 10.5                           |                                | 10.5                           | 9.8                            | 0.7                                  |
| SUNBURST B                              | 445.0                          | 0.11     |          | 48.9                           |                                | 48.9                           | 44.7                           | 4.2                                  |
| <b>RED EARTH 088-08W5</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A TOTAL                     | 9 050.0                        |          |          | 527.0                          | 351.0                          | 878.0                          | 476.9                          | 401.1                                |
| PRIMARY AREA                            | 6 170.0                        | 0.05     |          | 325.0                          |                                | 325.0                          |                                |                                      |
| WATER FLOOD AREA                        | 2 880.0                        | 0.07     | 0.13     | 202.0                          | 351.0                          | 553.0                          |                                |                                      |
| SLAVE POINT C                           | 240.0                          | 0.15     |          | 36.0                           |                                | 36.0                           | 27.0                           | 9.0                                  |
| SLAVE POINT E                           | 4 000.0                        | 0.06     |          | 240.0                          |                                | 240.0                          | 165.1                          | 74.9                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 65    | 10.06                       | 0.047    | 0.16          | 0.76      | 101                            | 825               | 84   | 15 360              | 1 687.7                    | 1972         | 73 12                          |
| 65    | 20.97                       | 0.058    | 0.25          | 0.77      | 89                             | 811               | 88   | 15 720              | 1 861.4                    | 1973         | 77 02                          |
| 31    | 12.41                       | 0.048    | 0.20          | 0.76      | 92                             | 815               | 83   | 15 479              | 1 688.0                    | 1974         | 75 10                          |
| 65    | 8.75                        | 0.043    | 0.27          | 0.77      | 85                             | 834               | 89   | 14 580              | 1 491.4                    | 1976         | 85 04                          |
| 32    | 54.00                       | 0.040    | 0.30          | 0.78      | 81                             | 810               | 87   | 14 866              | 1 579.0                    | 1980         | 83 12 - GPP                    |
| 64    | 12.00                       | 0.050    | 0.20          | 0.76      | 104                            | 815               | 72   | 13 823              | 1 539.0                    | 1982         | 82 07 - SUSP 84 04             |
| 45    | 50.00                       | 0.020    | 0.60          | 0.78      | 81                             | 783               | 93   | 12 801              | 1 614.5                    | 1982         | 83 12                          |
| 64    | 15.00                       | 0.040    | 0.28          | 0.74      | 105                            | 803               | 45   | 14 540              | 1 584.4                    | 1983         | 84 05 - SUSP 84 08             |
| 64    | 11.50                       | 0.060    | 0.13          | 0.84      | 100                            | 824               | 86   | 15 395              | 1 692.8                    | 1984         | 84 06                          |
| 64    | 19.76                       | 0.020    | 0.32          | 0.76      | 69                             | 834               | 88   | 14 770              | 1 680.3                    | 1982         | 85 08                          |
| 71    | 74.55                       | 0.080    | 0.10          | 0.67      | 140                            | 815               | 84   | 20 460              | 1 906.2                    | 1966         | 76 06                          |
| 11    | 2.96                        | 0.120    | 0.14          | 0.69      | 154                            | 829               | 60   | 19 600              | 1 814.8                    | 1973         | 78 09 - SUSP 78 06             |
| 5     | 19.87                       | 0.080    | 0.20          | 0.64      | 180                            | 811               | 88   | 18 480              | 1 893.4                    | 1965         | 83 12 - SUSP 82 01             |
| 42    | 9.14                        | 0.098    | 0.10          | 0.71      | 121                            | 825               | 84   | 16 220              | 1 830.3                    | 1969         | 71 01                          |
| 32    | 9.54                        | 0.080    | 0.15          | 0.75      | 107                            | 820               | 82   | 17 750              | 1 925.4                    | 1968         | 82 05                          |
| 64    | 16.70                       | 0.080    | 0.25          | 0.70      | 124                            | 825               | 72   | 17 360              | 1 903.0                    | 1968         | 78 04 - ABAND 79 10            |
| 128   | 19.80                       | 0.080    | 0.14          | 0.70      | 138                            | 825               | 66   | 17 980              | 1 911.1                    | 1978         | 82 11                          |
| 65    | 17.68                       | 0.080    | 0.10          | 0.76      | 89                             | 820               | 77   | 17 350              | 1 829.4                    | 1967         | 78 11                          |
| 64    | 14.00                       | 0.100    | 0.15          | 0.68      | 125                            | 825               | 90   | 17 600              | 1 922.4                    | 1978         | 79 06                          |
| 64    | 8.00                        | 0.070    | 0.12          | 0.68      | 130                            | 802               | 78   | 17 326              | 1 906.5                    | 1979         | 83 05                          |
| 64    | 13.80                       | 0.070    | 0.08          | 0.64      | 160                            | 789               | 90   | 16 547              | 1 918.4                    | 1982         | 83 07                          |
| 24    | 11.80                       | 0.080    | 0.10          | 0.64      | 160                            | 790               | 90   | 13 472              | 2 010.1                    | 1983         | 85 04                          |
| 64    | 12.19                       | 0.067    | 0.28          | 0.71      | 112                            | 828               | 84   | 16 962              | 1 851.2                    | 1967         | 84 08                          |
| 64    | 14.60                       | 0.080    | 0.10          | 0.76      | 86                             | 789               | 87   | 14 566              | 1 867.4                    | 1969         | 84 11                          |
| 64    | 15.60                       | 0.073    | 0.10          | 0.76      | 86                             | 828               | 80   | 10 500              | 1 828.9                    | 1984         | 84 12                          |
| 64    | 15.00                       | 0.080    | 0.20          | 0.81      | 62                             | 834               | 73   | 8 700               | 1 825.0                    | 1984         | 85 04                          |
| 167   | 65.17                       | 0.097    | 0.14          | 0.63      | 176                            | 801               | 81   | 18 600              | 1 945.2                    | 1965         | 68 02 - GPP                    |
| 223   | 79.86                       | 0.060    | 0.14          | 0.71      | 162                            | 811               | 85   | 18 820              | 1 969.0                    | 1966         | 68 02                          |
| 51    | 4.27                        | 0.040    | 0.30          | 0.65      | 171                            | 811               | 88   | 18 060              | 1 947.7                    | 1966         | 68 02 - SUSP 68 11             |
| 101   | 18.35                       | 0.028    | 0.30          | 0.57      | 225                            | 775               | 92   | 18 620              | 1 943.1                    | 1965         | 84 08 - GPP                    |
| 177   | 92.57                       | 0.075    | 0.12          | 0.66      | 159                            | 806               | 90   | 18 930              | 1 964.1                    | 1966         | 71 09 - GPP                    |
| 46    | 47.70                       | 0.093    | 0.14          | 0.57      | 249                            | 797               | 88   | 22 410              | 1 903.8                    | 1967         | 85 12 - GPP                    |
| 85    | 72.48                       | 0.088    | 0.11          | 0.66      | 160                            | 806               | 88   | 18 510              | 1 917.8                    | 1967         | 71 09 - GPP                    |
| 69    | 32.28                       | 0.050    | 0.17          | 0.73      | 118                            | 811               | 88   | 17 850              | 1 929.5                    | 1967         | 83 12                          |
| 58    | 25.57                       | 0.050    | 0.15          | 0.75      | 106                            | 801               | 83   | 17 850              | 1 947.4                    | 1968         | 83 12                          |
| 30    | 19.40                       | 0.138    | 0.15          | 0.75      | 101                            | 801               | 92   | 17 830              | 1 941.6                    | 1968         | 84 11                          |
| 77    | 10.70                       | 0.036    | 0.22          | 0.75      | 101                            | 788               | 95   | 18 030              | 1 975.7                    | 1968         | 82 10                          |
| 20    | 13.56                       | 0.057    | 0.20          | 0.77      | 88                             | 797               | 98   | 18 290              | 1 971.6                    | 1968         | 85 05                          |
| 32    | 15.24                       | 0.057    | 0.25          | 0.74      | 105                            | 801               | 98   | 18 230              | 2 020.8                    | 1969         | 71 05                          |
| 172   | 61.74                       | 0.073    | 0.14          | 0.75      | 159                            | 796               | 69   | 18 170              | 1 983.6                    | 1978         | 83 04                          |
| 56    | 25.00                       | 0.040    | 0.19          | 0.75      | 105                            | 801               | 90   | 17 582              | 1 927.3                    | 1982         | 85 03                          |
| 194   | 12.76                       | 0.080    | 0.87          | 0.75      | 103                            | 801               | 92   | 16 648              | 1 939.5                    | 1984         | 84 07                          |
| 85    | 1.00                        | 0.180    | 0.26          | 0.88      | 53                             | 888               | 38   | 10 172              | 1 031.8                    | 1981         | 82 12 - GPP                    |
| 97    | 2.53                        | 0.180    | 0.33          | 0.91      | 30                             | 825               | 27   | 4 900               | 799.5                      | 1952         | 68 07 - GPP                    |
| 97    |                             |          |               |           | 21                             | 825               | 27   | 1 480               | 785.5                      | 1965         | 77 03 - GPP                    |
| 16    | 5.55                        | 0.187    | 0.26          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 81    | 8.14                        | 0.187    | 0.26          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 89    | 5.18                        | 0.180    | 0.24          | 0.86      | 30                             | 825               | 28   | 5 050               | 742.8                      | 1965         | 85 12 - GPP                    |
| 65    | 6.71                        | 0.150    | 0.50          | 0.92      | 35                             | 904               | 28   | 2 880               | 746.2                      | 1975         | 82 12 - GPP                    |
| 53    | 7.62                        | 0.200    | 0.40          | 0.92      | 35                             | 904               | 28   | 2 760               | 698.0                      | 1931         | 76 12 - GPP                    |
| 4 094 |                             |          |               |           | 21                             | 820               | 48   | 12 459              | 1 310.2                    | 1958         | 85 01 - GPP                    |
| 3 182 | 3.09                        | 0.090    | 0.25          | 0.93      |                                |                   |      |                     |                            |              |                                |
| 912   | 5.03                        | 0.090    | 0.25          | 0.93      |                                |                   |      |                     |                            |              |                                |
| 91    | 4.60                        | 0.085    | 0.25          | 0.90      | 24                             | 829               | 48   | 12 170              | 1 346.6                    | 1968         | 82 12 - GPP                    |
| 1 216 | 4.72                        | 0.100    | 0.25          | 0.93      | 42                             | 834               | 39   | 12 417              | 1 264.4                    | 1970         | 85 07                          |

TABLE 2-4

| FIELD<br>POOL                     | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| RED EARTH 088-08W5<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT F                     | 119.0                          | 0.10     |          | 11.9                           |                                | 11.9                           | 8.0                            | 3.9                                  |
| SLAVE POINT G                     | 137.0                          | 0.10     |          | 13.7                           |                                | 13.7                           | 7.1                            | 6.6                                  |
| SLAVE POINT J                     | 144.0                          | 0.10     |          | 14.4                           |                                | 14.4                           | 6.0                            | 8.4                                  |
| SLAVE POINT M                     | 177.0                          | 0.10     |          | 17.7                           |                                | 17.7                           | 3.3                            | 14.4                                 |
| SLAVE POINT N                     | 117.0                          | 0.10     |          | 11.7                           |                                | 11.7                           | 2.0                            | 9.7                                  |
| SLAVE POINT D                     | 246.0                          | 0.10     |          | 24.6                           |                                | 24.6                           | 0.9                            | 23.7                                 |
| SLAVE POINT P                     | 286.0                          | 0.10     |          | 28.6                           |                                | 28.6                           | 7.2                            | 21.4                                 |
| SLAVE POINT Q                     | 244.0                          | 0.10     |          | 24.4                           |                                | 24.4                           | 1.2                            | 23.2                                 |
| SLAVE POINT S                     | 151.0                          | 0.10     |          | 15.1                           |                                | 15.1                           | 0.1                            | 15.0                                 |
| SLAVE POINT T                     | 329.0                          | 0.10     |          | 32.9                           |                                | 32.9                           | 4.0                            | 28.9                                 |
| SLAVE POINT U                     | 357.0                          | 0.10     |          | 35.7                           |                                | 35.7                           | 12.0                           | 23.7                                 |
| SLAVE POINT V                     | 304.0                          | 0.10     |          | 30.4                           |                                | 30.4                           | 9.1                            | 21.3                                 |
| SLAVE POINT W                     | 153.0                          | 0.10     |          | 15.3                           |                                | 15.3                           | 2.1                            | 13.2                                 |
| SLAVE POINT X                     | 229.0                          | 0.10     |          | 22.9                           |                                | 22.9                           | 0.1                            | 22.8                                 |
| SLAVE POINT Z                     | 49.0                           | 0.10     |          | 4.9                            |                                | 4.9                            | 1.0                            | 3.9                                  |
| GRANITE WASH A                    | 14 400.0                       | 0.30     |          | 4 320.0                        |                                | 4 320.0                        | 2 856.5                        | 1 463.5                              |
| GRANITE WASH B                    | 76.6                           | <0.11    |          | 8.0                            |                                | 8.0                            | 8.0                            |                                      |
| GRANITE WASH C                    | 2 640.0                        | 0.30     |          | 792.0                          |                                | 792.0                          | 634.5                          | 157.5                                |
| GRANITE WASH D                    | 1 990.0                        | 0.10     |          | 199.0                          |                                | 199.0                          | 36.7                           | 162.3                                |
| GRANITE WASH E TOTAL              | 4 000.0                        |          |          | 1 000.0                        | 90.0                           | 1 090.0                        | 697.5                          | 392.5                                |
| PRIMARY AREA                      | 2 200.0                        | 0.25     |          | 550.0                          |                                | 550.0                          |                                |                                      |
| WATER FLOOD AREA                  | 1 800.0                        | 0.25     | 0.05     | 450.0                          | 90.0                           | 540.0                          |                                |                                      |
| GRANITE WASH F                    | 142.0                          | <0.02    |          | 1.9                            |                                | 1.9                            | 1.9                            |                                      |
| GRANITE WASH I                    | 136.0                          | 0.10     |          | 13.5                           |                                | 13.5                           | 8.1                            | 5.4                                  |
| GRANITE WASH J                    | 337.0                          | 0.15     |          | 50.5                           |                                | 50.5                           | 30.8                           | 19.7                                 |
| GRANITE WASH K                    | 558.0                          | 0.07     |          | 39.1                           |                                | 39.1                           | 27.6                           | 11.5                                 |
| GRANITE WASH L                    | 427.0                          | 0.02     |          | 8.5                            |                                | 8.5                            | 8.0                            | 0.5                                  |
| GRANITE WASH M                    | 45.6                           | 0.15     |          | 6.8                            |                                | 6.8                            | 4.0                            | 2.8                                  |
| GRANITE WASH N                    | 68.3                           | 0.20     |          | 13.7                           |                                | 13.7                           | 11.4                           | 2.3                                  |
| GRANITE WASH O                    | 440.0                          | 0.01     |          | 4.4                            |                                | 4.4                            | 4.4                            |                                      |
| GRANITE WASH P                    | 132.0                          | 0.15     |          | 19.8                           |                                | 19.8                           | 6.0                            | 13.8                                 |
| GRANITE WASH Q                    | 92.5                           | <0.02    |          | 1.5                            |                                | 1.5                            | 1.5                            |                                      |
| GRANITE WASH R                    | 231.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| GRANITE WASH S                    | 159.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| GRANITE WASH T                    | 259.0                          | 0.03     |          | 7.8                            |                                | 7.8                            | 3.3                            | 4.5                                  |
| GRANITE WASH V                    | 372.0                          | 0.30     |          | 112.0                          |                                | 112.0                          | 10.3                           | 101.7                                |
| GRANITE WASH CC                   | 55.7                           | 0.10     |          | 5.6                            |                                | 5.6                            | 0.8                            | 4.8                                  |
| GRANITE WASH DD                   | 318.0                          | 0.20     |          | 63.6                           |                                | 63.6                           | 5.6                            | 58.0                                 |
| GRANITE WASH EE                   | 531.0                          | 0.05     |          | 26.6                           |                                | 26.6                           | 2.3                            | 24.3                                 |
| GRANITE WASH FF                   | 225.0                          | 0.15     |          | 33.8                           |                                | 33.8                           | 0.3                            | 33.5                                 |
| GRANITE WASH HH                   | 809.0                          | 0.15     |          | 121.0                          |                                | 121.0                          | 18.6                           | 102.4                                |
| GRANITE WASH KK                   | 86.2                           | 0.25     |          | 21.6                           |                                | 21.6                           |                                | 21.6                                 |
| GRANITE WASH SS                   | 38.3                           | 0.15     |          | 5.7                            |                                | 5.7                            | 0.5                            | 5.2                                  |
| RED WILLOW 039-16W4               |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                     | 228.0                          | 0.10     |          | 22.8                           |                                | 22.8                           | 4.5                            | 18.3                                 |
| GLAUCONITIC B                     | 105.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| CAMROSE A                         | 119.0                          | 0.25     |          | 29.8                           |                                | 29.8                           | 15.9                           | 13.9                                 |
| CAMROSE B                         | 195.0                          | 0.25     |          | 48.8                           |                                | 48.8                           | 7.5                            | 41.3                                 |
| CAMROSE C                         | 250.0                          | 0.20     |          | 50.0                           |                                | 50.0                           | 4.5                            | 45.5                                 |
| D-3 A                             | 326.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| REDWATER 057-21W4                 |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER VIKING G                    | 225.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| UP-MID-LDW VIKING A               | 3 710.0                        | 0.10     |          | 371.0                          |                                | 371.0                          | 143.3                          | 227.7                                |
| LOWER VIKING B                    | 4 000.0                        | 0.10     |          | 400.0                          |                                | 400.0                          | 122.8                          | 277.2                                |
| LOWER VIKING H                    | 600.0                          | 0.10     |          | 60.0                           |                                | 60.0                           | 23.6                           | 36.4                                 |
| LOWER VIKING Q                    | 852.0                          | 0.10     |          | 85.2                           |                                | 85.2                           | 1.4                            | 83.8                                 |
| UPPER MANNVILLE E                 | 270.0                          | 0.10     |          | 27.0                           |                                | 27.0                           | 0.3                            | 26.7                                 |
| BASAL MANNVILLE D                 | 888.0                          | 0.02     |          | 17.8                           |                                | 17.8                           | 8.0                            | 9.8                                  |
| BASAL MANNVILLE E                 | 253.0                          | 0.15     |          | 38.0                           |                                | 38.0                           | 31.3                           | 6.7                                  |
| BASAL MANNVILLE F                 | 106.0                          | 0.20     |          | 21.2                           |                                | 21.2                           | 10.3                           | 10.9                                 |
| BASAL MANNVILLE H                 | 1 040.0                        | 0.10     |          | 104.0                          |                                | 104.0                          | 14.2                           | 89.8                                 |
| BASAL MANNVILLE I                 | 266.0                          | <0.01    |          | 1.4                            |                                | 1.4                            | 1.4                            |                                      |
| BASAL MANNVILLE J                 | 243.0                          | 0.10     |          | 24.3                           |                                | 24.3                           | 9.6                            | 14.7                                 |
| BASAL MANNVILLE R                 | 188.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BASAL MANNVILLE T                 | 245.0                          | 0.01     |          | 2.5                            |                                | 2.5                            | 0.2                            | 2.3                                  |
| ELLERSLIE A                       | 103.0                          | 0.05     |          | 5.2                            |                                | 5.2                            | 0.1                            | 5.1                                  |
| ELLERSLIE B                       | 49.9                           | 0.10     |          | 5.0                            |                                | 5.0                            | 0.8                            | 4.2                                  |
| D-3                               | 207 000.0                      | 0.62     |          | 128 000.0                      |                                | 128 000.0                      | 122 400.9                      | 5 599.1                              |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 65     | 3.35                        | 0.076    | 0.20          | 0.90      | 43                             | 829               | 82   | 13 180              | 1 325.3                    | 1973         | 74 03 - GPP                    |
| 65     | 3.35                        | 0.100    | 0.30          | 0.90      | 43                             | 829               | 43   | 13 310              | 1 328.3                    | 1974         | 74 06 - GPP                    |
| 64     | 4.60                        | 0.070    | 0.25          | 0.93      | 19                             | 810               | 39   | 2 689               | 1 291.3                    | 1966         | 81 01 - GPP                    |
| 64     | 4.00                        | 0.100    | 0.25          | 0.92      | 21                             | 823               | 39   | 8 758               | 1 348.3                    | 1982         | 83 02                          |
| 64     | 2.40                        | 0.110    | 0.25          | 0.92      | 21                             | 821               | 39   | 5 563               | 1 354.8                    | 1983         | 83 06                          |
| 64     | 6.50                        | 0.095    | 0.33          | 0.93      | 22                             | 843               | 43   | 2 461               | 1 361.8                    | 1983         | 84 01                          |
| 64     | 12.00                       | 0.080    | 0.50          | 0.93      | 21                             | 837               | 41   | 3 330               | 1 497.4                    | 1982         | 82 06                          |
| 64     | 6.27                        | 0.100    | 0.34          | 0.92      | 21                             | 821               | 39   | 8 803               | 1 254.0                    | 1984         | 84 09                          |
| 64     | 3.80                        | 0.090    | 0.25          | 0.92      | 25                             | 823               | 44   | 3 994               | 1 361.4                    | 1983         | 84 11                          |
| 64     | 11.00                       | 0.080    | 0.35          | 0.90      | 34                             | 828               | 38   | 6 513               | 1 219.9                    | 1982         | 85 03                          |
| 64     | 12.00                       | 0.100    | 0.50          | 0.93      | 25                             | 826               | 41   | 10 328              | 1 255.0                    | 1980         | 82 07                          |
| 64     | 14.20                       | 0.048    | 0.25          | 0.93      | 49                             | 828               | 37   | 6 249               | 1 220.6                    | 1981         | 81 11                          |
| 64     | 5.52                        | 0.062    | 0.25          | 0.93      | 19                             | 825               | 39   | 12 403              | 1 262.5                    | 1982         | 83 02                          |
| 64     | 7.00                        | 0.110    | 0.49          | 0.91      | 32                             | 832               | 38   | 11 702              | 1 209.3                    | 1983         | 85 05                          |
| 64     | 1.50                        | 0.080    | 0.25          | 0.85      | 57                             | 820               | 38   | 5 700               | 1 342.8                    | 1984         | 85 08                          |
| 3 776  | 3.72                        | 0.149    | 0.20          | 0.86      | 56                             | 825               | 42   | 16 130              | 1 433.8                    | 1958         | 75 12                          |
| 65     | 1.83                        | 0.094    | 0.20          | 0.86      | 56                             | 825               | 43   | 15 820              | 1 438.4                    | 1965         | 74 12 - SUSP 74 01             |
| 241    | 11.90                       | 0.134    | 0.20          | 0.86      | 56                             | 825               | 42   | 16 000              | 1 460.9                    | 1956         | 81 12                          |
| 607    | 3.30                        | 0.150    | 0.23          | 0.86      | 48                             | 825               | 42   | 15 930              | 1 470.5                    | 1965         | 85 09                          |
| 1 136  |                             |          |               |           | 56                             | 825               | 42   | 15 380              | 1 492.0                    | 1959         | 84 06 - GPP                    |
| 944    | 3.15                        | 0.130    | 0.33          | 0.85      |                                |                   |      |                     |                            |              |                                |
| 192    | 11.95                       | 0.142    | 0.35          | 0.85      |                                |                   |      |                     |                            |              |                                |
| 64     | 3.23                        | 0.093    | 0.15          | 0.86      | 56                             | 825               | 43   | 15 860              | 1 502.1                    | 1965         | 84 11 - ABAND 67 01            |
| 65     | 2.74                        | 0.119    | 0.25          | 0.86      | 56                             | 825               | 43   | 15 960              | 1 512.0                    | 1963         | 74 12 - SUSP 83 09             |
| 130    | 3.35                        | 0.120    | 0.25          | 0.86      | 56                             | 825               | 53   | 15 790              | 1 500.2                    | 1967         | 75 12 - GPP                    |
| 130    | 4.97                        | 0.126    | 0.20          | 0.86      | 56                             | 825               | 42   | 15 960              | 1 516.0                    | 1968         | 81 12                          |
| 129    | 3.96                        | 0.126    | 0.23          | 0.86      | 56                             | 834               | 52   | 15 450              | 1 520.0                    | 1958         | 84 03 - GPP                    |
| 65     | 0.91                        | 0.112    | 0.20          | 0.86      | 56                             | 829               | 52   | 15 440              | 1 469.7                    | 1970         | 71 03 - SUSP 85 07             |
| 65     | 1.28                        | 0.120    | 0.20          | 0.86      | 60                             | 834               | 48   | 15 620              | 1 506.6                    | 1970         | 76 12 - SUSP 83 08             |
| 65     | 5.49                        | 0.180    | 0.20          | 0.86      | 57                             | 829               | 42   | 15 250              | 1 435.6                    | 1973         | 76 12 - SUSP 76 01             |
| 64     | 2.00                        | 0.150    | 0.20          | 0.86      | 56                             | 832               | 42   | 17 740              | 1 466.0                    | 1979         | 79 12 - GPP                    |
| 64     | 2.00                        | 0.120    | 0.30          | 0.86      | 56                             | 834               | 72   | 14 756              | 1 473.5                    | 1979         | 83 12 - SUSP 81 09             |
| 64     | 3.50                        | 0.150    | 0.20          | 0.86      | 56                             | 825               | 56   | 7 200               | 1 415.7                    | 1980         | 81 12 - ABAND 81 01            |
| 64     | 3.20                        | 0.180    | 0.50          | 0.86      | 56                             | 825               | 48   | 9 560               | 1 438.9                    | 1980         | 81 12 - ABAND 81 01            |
| 64     | 4.80                        | 0.140    | 0.30          | 0.86      | 140                            | 838               | 27   | 15 096              | 1 501.8                    | 1981         | 83 12 - SUSP 85 06             |
| 64     | 6.10                        | 0.140    | 0.20          | 0.80      | 64                             | 829               | 42   | 15 083              | 1 493.0                    | 1982         | 83 02                          |
| 64     | 1.50                        | 0.110    | 0.38          | 0.85      | 64                             | 831               | 42   | 15 148              | 1 519.3                    | 1982         | 84 03                          |
| 64     | 7.00                        | 0.110    | 0.25          | 0.86      | 50                             | 823               | 42   | 15 024              | 1 466.5                    | 1983         | 84 04                          |
| 64     | 6.70                        | 0.180    | 0.20          | 0.86      | 48                             | 845               | 49   | 15 737              | 1 443.3                    | 1981         | 85 12                          |
| 64     | 5.70                        | 0.110    | 0.34          | 0.85      | 53                             | 823               | 50   | 14 517              | 1 497.4                    | 1984         | 84 07                          |
| 350    | 2.88                        | 0.128    | 0.27          | 0.86      | 64                             | 826               | 42   | 14 342              | 1 491.6                    | 1984         | 85 09                          |
| 64     | 1.71                        | 0.157    | 0.41          | 0.85      | 64                             | 852               | 42   | 14 331              | 1 418.8                    | 1984         | 85 03                          |
| 64     | 1.39                        | 0.091    | 0.45          | 0.86      | 47                             | 826               | 46   | 5 300               | 1 489.7                    | 1984         | 85 11                          |
| 64     | 3.00                        | 0.220    | 0.35          | 0.83      | 71                             | 868               | 39   | 8 697               | 1 132.0                    | 1981         | 82 04                          |
| 64     | 2.00                        | 0.180    | 0.45          | 0.83      | 60                             | 850               | 47   | 8 948               | 1 114.7                    | 1981         | 82 10 - SUSP 82 11             |
| 29     | 9.56                        | 0.053    | 0.10          | 0.90      | 56                             | 890               | 48   | 9 730               | 1 335.8                    | 1983         | 85 05                          |
| 64     | 7.86                        | 0.055    | 0.12          | 0.80      | 59                             | 879               | 52   | 9 449               | 1 332.3                    | 1983         | 84 05                          |
| 64     | 8.30                        | 0.084    | 0.30          | 0.80      | 50                             | 900               | 38   | 9 124               | 1 230.6                    | 1984         | 85 03                          |
| 64     | 12.50                       | 0.060    | 0.15          | 0.80      | 35                             | 947               | 48   | 10 108              | 1 340.8                    | 1981         | 84 12 - ABAND 84 07            |
| 64     | 3.00                        | 0.200    | 0.35          | 0.90      | 36                             | 882               | 45   | 5 102               | 631.6                      | 1976         | 83 12 - SUSP 81 12             |
| 1 635  | 2.26                        | 0.190    | 0.40          | 0.88      | 28                             | 800               | 27   | 5 030               | 649.9                      | 1976         | 83 10 - GPP                    |
| 1 536  | 2.80                        | 0.180    | 0.44          | 0.92      | 35                             | 865               | 28   | 5 772               | 680.5                      | 1977         | 83 10                          |
| 320    | 1.67                        | 0.220    | 0.42          | 0.88      | 37                             | 847               | 31   | 5 367               | 647.5                      | 1976         | 83 12                          |
| 256    | 3.94                        | 0.180    | 0.49          | 0.92      | 30                             | 872               | 28   | 5 654               | 715.7                      | 1984         | 85 11                          |
| 64     | 3.00                        | 0.260    | 0.40          | 0.90      | 44                             | 885               | 30   | 5 996               | 754.5                      | 1981         | 81 09 - SUSP 83 12             |
| 80     | 7.75                        | 0.220    | 0.30          | 0.93      | 23                             | 931               | 43   | 5 960               | 854.7                      | 1977         | 84 12 - GPP                    |
| 108    | 1.83                        | 0.200    | 0.20          | 0.80      |                                | 843               | 41   | 6 640               | 1 022.0                    | 1954         | 84 12 - GPP                    |
| 64     | 0.92                        | 0.250    | 0.20          | 0.90      | 35                             | 860               | 38   | 6 590               | 1 014.3                    | 1976         | 83 12 - GPP                    |
| 112    | 6.25                        | 0.250    | 0.34          | 0.90      | 46                             | 925               | 30   | 5 962               | 852.5                      | 1979         | 84 12 - GPP                    |
| 64     | 5.50                        | 0.210    | 0.60          | 0.90      | 50                             | 925               | 43   | 6 171               | 854.3                      | 1979         | 83 12 - SUSP 82 11             |
| 64     | 2.50                        | 0.260    | 0.35          | 0.90      | 43                             | 855               | 30   | 6 751               | 946.1                      | 1979         | 80 08 - GPP                    |
| 16     | 8.50                        | 0.270    | 0.45          | 0.93      | 30                             | 931               | 35   | 6 083               | 866.1                      | 1980         | 84 12 - ABAND 82 06            |
| 32     | 4.20                        | 0.270    | 0.25          | 0.90      | 33                             | 923               | 48   | 6 500               | 848.9                      | 1981         | 82 11 - SUSP 83 12             |
| 16     | 3.00                        | 0.300    | 0.23          | 0.93      | 26                             | 948               | 34   | 5 712               | 832.1                      | 1982         | 83 07 - ABAND 83 12            |
| 64     | 0.80                        | 0.200    | 0.47          | 0.92      | 32                             | 880               | 32   | 600                 | 945.9                      | 1984         | 85 03                          |
| 15 199 | 31.39                       | 0.065    | 0.25          | 0.89      | 33                             | 844               | 34   | 7 340               | 977.8                      | 1948         | 72 02 - GPP                    |

TABLE 2-4

| FIELD<br>POOL      | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                    | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                    |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                    | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| RETLAW 012-18W4    |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE A        | 868.0                          | 0.10     |          | 86.8                           |                                | 86.8                           | 19.7                           | 67.1                                 |
| MANNVILLE II       | 288.0                          | 0.03     |          | 8.6                            |                                | 8.6                            | 2.1                            | 6.5                                  |
| MANNVILLE KK       | 139.0                          | 0.10     |          | 13.9                           |                                | 13.9                           | 5.3                            | 8.6                                  |
| MANNVILLE LL       | 2 480.0                        | 0.10     |          | 248.0                          |                                | 248.0                          | 65.6                           | 182.4                                |
| MANNVILLE RR       | 31.8                           | 0.10     |          | 3.2                            |                                | 3.2                            | 1.8                            | 1.4                                  |
| MANNVILLE SS       | 429.0                          | <0.01    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| MANNVILLE TT       | 1 310.0                        | 0.01     |          | 13.1                           |                                | 13.1                           | 2.8                            | 10.3                                 |
| MANNVILLE B&D      | 300.0                          | 0.04     |          | 12.0                           |                                | 12.0                           | 7.4                            | 4.6                                  |
| MANNVILLE CCC      | 290.0                          | 0.05     |          | 14.5                           |                                | 14.5                           | 3.9                            | 10.6                                 |
| MANNVILLE DDD      | 52.8                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| MANNVILLE NNN      | 187.0                          | 0.15     |          | 28.0                           |                                | 28.0                           | 7.4                            | 20.6                                 |
| MANNVILLE RRR      | 473.0                          | 0.05     |          | 23.7                           |                                | 23.7                           | 6.3                            | 17.4                                 |
| MANNVILLE WWW      | 60.2                           | 0.10     |          | 6.0                            |                                | 6.0                            | 0.2                            | 5.8                                  |
| MANNVILLE YYY      | 48.4                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MANNVILLE A2A      | 66.6                           | <0.02    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| RICH 034-21W4      |                                |          |          |                                |                                |                                |                                |                                      |
| D-2 A              | 200.0                          | 0.40     |          | 80.0                           |                                | 80.0                           | 20.9                           | 59.1                                 |
| D-3 A              | 6 190.0                        | 0.50     |          | 3 100.0                        |                                | 3 100.0                        | 557.5                          | 2 542.5                              |
| RICHDAL 030-13W4   |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE F  | 216.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| UPPER MANNVILLE G  | 1 560.0                        | 0.10     |          | 156.0                          |                                | 156.0                          | 20.0                           | 136.0                                |
| UPPER MANNVILLE K  | 466.0                          | 0.03     |          | 14.0                           |                                | 14.0                           | 5.0                            | 9.0                                  |
| UPPER MANNVILLE L  | 1 110.0                        | 0.10     |          | 111.0                          |                                | 111.0                          | 8.1                            | 102.9                                |
| LOWER MANNVILLE F  | 116.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LOWER MANNVILLE D  | 122.0                          | 0.10     |          | 12.2                           |                                | 12.2                           |                                | 12.2                                 |
| RICINUS 034-08W5   |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A          | 11 600.0                       | <0.15    |          | 1 690.0                        |                                | 1 690.0                        | 1 226.1                        | 463.9                                |
| CARDIUM B          | 600.0                          | 0.18     |          | 108.0                          |                                | 108.0                          | 81.4                           | 26.6                                 |
| CARDIUM C          | 1 270.0                        | 0.05     |          | 63.6                           |                                | 63.6                           | 38.0                           | 25.6                                 |
| CARDIUM D          | 2 380.0                        | 0.10     |          | 238.0                          |                                | 238.0                          | 171.9                          | 66.1                                 |
| CARDIUM E          | 822.0                          | 0.05     |          | 41.1                           |                                | 41.1                           | 27.4                           | 13.7                                 |
| CARDIUM F          | 950.0                          | 0.10     |          | 95.0                           |                                | 95.0                           | 43.3                           | 51.7                                 |
| CARDIUM G          | 600.0                          | 0.15     |          | 90.0                           |                                | 90.0                           | 62.3                           | 27.7                                 |
| CARDIUM H          | 1 080.0                        | 0.15     |          | 162.0                          |                                | 162.0                          | 77.2                           | 84.8                                 |
| CARDIUM K          | 338.0                          | 0.15     |          | 50.7                           |                                | 50.7                           | 28.8                           | 21.9                                 |
| CARDIUM L          | 5 000.0                        | 0.15     |          | 750.0                          |                                | 750.0                          | 461.0                          | 289.0                                |
| CARDIUM M          | 207.0                          | 0.12     |          | 24.8                           |                                | 24.8                           | 11.3                           | 13.5                                 |
| CARDIUM O          | 492.0                          | 0.05     |          | 24.6                           |                                | 24.6                           | 19.0                           | 5.6                                  |
| CARDIUM S          | 814.0                          | 0.10     |          | 81.4                           |                                | 81.4                           | 32.3                           | 49.1                                 |
| CARDIUM T          | 2 260.0                        | <0.01    |          | 7.3                            |                                | 7.3                            | 7.3                            |                                      |
| CARDIUM V          | 3 160.0                        | 0.10     |          | 316.0                          |                                | 316.0                          | 74.9                           | 241.1                                |
| CARDIUM W          | 4 290.0                        | 0.10     |          | 429.0                          |                                | 429.0                          | 190.4                          | 238.6                                |
| CARDIUM X          | 874.0                          | 0.10     |          | 87.4                           |                                | 87.4                           | 65.9                           | 21.5                                 |
| CARDIUM Y          | 121.0                          | 0.10     |          | 12.1                           |                                | 12.1                           | 9.0                            | 3.1                                  |
| CARDIUM Z          | 450.0                          | 0.03     |          | 13.5                           |                                | 13.5                           | 9.0                            | 4.5                                  |
| CARDIUM AA         | 512.0                          | 0.05     |          | 25.6                           |                                | 25.6                           | 8.0                            | 17.6                                 |
| CARDIUM BB         | 327.0                          | 0.03     |          | 9.8                            |                                | 9.8                            | 1.9                            | 7.9                                  |
| CARDIUM CC         | 184.0                          | 0.03     |          | 5.5                            |                                | 5.5                            | 1.5                            | 4.0                                  |
| CARDIUM EE         | 956.0                          | 0.10     |          | 95.6                           |                                | 95.6                           | 28.1                           | 67.5                                 |
| CARDIUM FF         | 182.0                          | 0.05     |          | 9.1                            |                                | 9.1                            | 1.7                            | 7.4                                  |
| CARDIUM GG         | 262.0                          | 0.10     |          | 26.2                           |                                | 26.2                           | 5.9                            | 20.3                                 |
| CARDIUM II         | 323.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| CARDIUM LL         | 467.0                          | 0.10     |          | 46.7                           |                                | 46.7                           | 5.2                            | 41.5                                 |
| CARDIUM MM         | 435.0                          | 0.15     |          | 65.3                           |                                | 65.3                           | 2.6                            | 62.7                                 |
| CARDIUM JJ&KK      | 250.0                          | 0.12     |          | 30.0                           |                                | 30.0                           | 17.9                           | 12.1                                 |
| ROCKYFORD 026-23W4 |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE C  | 180.0                          | 0.10     |          | 18.0                           |                                | 18.0                           | 1.5                            | 16.5                                 |
| LOWER MANNVILLE A  | 811.0                          | 0.10     |          | 81.1                           |                                | 81.1                           | 23.5                           | 57.6                                 |
| LOWER MANNVILLE B  | 279.0                          | 0.20     |          | 55.8                           |                                | 55.8                           | 12.1                           | 43.7                                 |
| LOWER MANNVILLE C  | 104.0                          | 0.10     |          | 10.4                           |                                | 10.4                           | 4.0                            | 6.4                                  |
| LOWER MANNVILLE F  | 81.1                           | 0.10     |          | 8.1                            |                                | 8.1                            |                                | 8.1                                  |
| ROSEBUD 027-21W4   |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE          | 420.0                          | 0.15     |          | 63.0                           |                                | 63.0                           | 61.4                           | 1.6                                  |
| ROWLEY 032-20W4    |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING C           | 35.2                           | 0.10     |          | 3.5                            |                                | 3.5                            |                                | 3.5                                  |
| LOWER MANNVILLE A  | 944.0                          | <0.01    |          | 3.9                            |                                | 3.9                            | 3.9                            |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 560   | 1.72                        | 0.176    | 0.36          | 0.80      | 64                             | 870               | 34   | 11 650              | 1 108.0                    | 1959         | 84 12 - GPP                    |
| 128   | 3.70                        | 0.100    | 0.30          | 0.87      | 62                             | 876               | 32   | 10 880              | 1 092.6                    | 1978         | 80 12 - GPP                    |
| 64    | 4.30                        | 0.080    | 0.25          | 0.84      | 74                             | 865               | 36   | 10 560              | 1 089.5                    | 1977         | 78 10                          |
| 320   | 5.95                        | 0.210    | 0.27          | 0.85      | 70                             | 891               | 38   | 11 690              | 1 084.8                    | 1979         | 83 04                          |
| 64    | 0.60                        | 0.150    | 0.35          | 0.85      | 66                             | 886               | 30   | 10 000              | 1 074.1                    | 1978         | 85 12                          |
| 64    | 8.00                        | 0.150    | 0.35          | 0.86      | 62                             | 900               | 37   | 11 479              | 1 077.5                    | 1980         | 84 12 - SUSP 82 09             |
| 128   | 14.88                       | 0.134    | 0.41          | 0.87      | 58                             | 900               | 37   | 11 078              | 1 082.5                    | 1980         | 83 12 - SUSP 84 12             |
| 125   | 1.83                        | 0.221    | 0.30          | 0.85      | 62                             | 876               | 38   | 11 780              | 1 091.2                    | 1959         | 84 12 - GPP                    |
| 64    | 2.50                        | 0.270    | 0.20          | 0.84      | 75                             | 896               | 35   | 11 838              | 1 108.8                    | 1981         | 84 12 - GPP                    |
| 64    | 0.80                        | 0.160    | 0.25          | 0.86      | 64                             | 885               | 30   | 11 943              | 1 078.0                    | 1980         | 83 12 - SUSP 83 06             |
| 65    | 3.00                        | 0.170    | 0.35          | 0.87      | 62                             | 870               | 33   | 11 366              | 1 097.4                    | 1980         | 83 12                          |
| 192   | 2.07                        | 0.206    | 0.32          | 0.85      | 73                             | 896               | 33   | 11 128              | 1 097.2                    | 1982         | 85 09                          |
| 64    | 1.10                        | 0.180    | 0.46          | 0.88      | 56                             | 899               | 34   | 11 373              | 1 097.3                    | 1983         | 83 06                          |
| 16    | 2.00                        | 0.220    | 0.20          | 0.86      | 62                             | 887               | 32   | 10 617              | 1 097.7                    | 1983         | 84 03 - ABAND 84 02            |
| 32    | 1.70                        | 0.180    | 0.20          | 0.85      | 73                             | 896               | 33   | 10 574              | 1 091.7                    | 1984         | 85 06 - SUSP 84 11             |
| 50    | 7.00                        | 0.080    | 0.12          | 0.81      | 74                             | 865               | 55   | 12 868              | 1 683.9                    | 1983         | 84 12                          |
| 64    | 103.00                      | 0.120    | 0.10          | 0.87      | 64                             | 857               | 65   | 14 327              | 1 796.3                    | 1982         | 84 11                          |
| 64    | 4.30                        | 0.160    | 0.46          | 0.91      | 37                             | 882               | 37   | 7 200               | 1 120.5                    | 1981         | 85 12 - SUSP 84 06             |
| 320   | 6.16                        | 0.190    | 0.51          | 0.85      | 63                             | 852               | 39   | 8 998               | 1 111.9                    | 1979         | 85 08                          |
| 395   | 1.01                        | 0.210    | 0.33          | 0.83      | 80                             | 855               | 38   | 9 119               | 1 117.2                    | 1971         | 79 12 - SUSP 83 01             |
| 128   | 7.65                        | 0.230    | 0.42          | 0.85      | 60                             | 847               | 34   | 9 190               | 1 109.9                    | 1983         | 84 09                          |
| 64    | 1.83                        | 0.170    | 0.35          | 0.89      | 44                             | 865               | 35   | 9 410               | 1 150.6                    | 1977         | 82 12 - ABAND 81 05            |
| 64    | 2.00                        | 0.230    | 0.50          | 0.83      | 68                             | 859               | 38   | 8 700               | 1 145.2                    | 1981         | 83 04                          |
| 1 425 | 10.49                       | 0.140    | 0.12          | 0.63      | 226                            | 806               | 83   | 27 280              | 2 748.5                    | 1969         | 85 02                          |
| 67    | 11.34                       | 0.170    | 0.27          | 0.64      | 250                            | 815               | 82   | 27 421              | 2 732.0                    | 1969         | 83 10 - GPP                    |
| 695   | 1.83                        | 0.150    | 0.10          | 0.74      | 131                            | 820               | 72   | 17 110              | 2 467.0                    | 1969         | 75 08                          |
| 420   | 11.73                       | 0.085    | 0.20          | 0.71      | 158                            | 815               | 84   | 23 890              | 2 764.5                    | 1969         | 71 02                          |
| 444   | 3.05                        | 0.134    | 0.13          | 0.52      | 323                            | 801               | 78   | 26 930              | 2 650.5                    | 1969         | 79 12 - GPP                    |
| 64    | 23.90                       | 0.100    | 0.15          | 0.73      | 130                            | 788               | 54   | 13 900              | 1 810.5                    | 1969         | 79 10 - GPP                    |
| 92    | 10.10                       | 0.110    | 0.14          | 0.68      | 144                            | 811               | 71   | 20 860              | 2 310.1                    | 1969         | 83 03                          |
| 101   | 18.80                       | 0.098    | 0.18          | 0.71      | 159                            | 806               | 60   | 18 930              | 2 024.8                    | 1969         | 83 03                          |
| 65    | 7.80                        | 0.127    | 0.12          | 0.60      | 213                            | 811               | 78   | 28 440              | 2 679.2                    | 1971         | 85 12                          |
| 724   | 8.10                        | 0.130    | 0.10          | 0.73      | 119                            | 815               | 71   | 15 258              | 2 320.9                    | 1970         | 79 11                          |
| 210   | 2.44                        | 0.075    | 0.23          | 0.70      | 160                            | 811               | 63   | 18 720              | 2 061.7                    | 1971         | 76 12                          |
| 128   | 6.40                        | 0.100    | 0.20          | 0.75      | 113                            | 815               | 75   | 15 270              | 2 511.2                    | 1973         | 82 07 - GPP                    |
| 65    | 15.51                       | 0.150    | 0.10          | 0.60      | 230                            | 806               | 70   | 15 170              | 2 325.9                    | 1974         | 75 02                          |
| 130   | 16.15                       | 0.160    | 0.10          | 0.75      | 108                            | 806               | 63   | 12 411              | 1 915.4                    | 1974         | 83 12 - SUSP 81 11             |
| 256   | 14.45                       | 0.130    | 0.10          | 0.73      | 131                            | 811               | 49   | 13 290              | 2 105.7                    | 1976         | 79 05                          |
| 256   | 17.00                       | 0.150    | 0.10          | 0.73      | 131                            | 820               | 49   | 13 980              | 2 192.8                    | 1976         | 79 05                          |
| 129   | 11.25                       | 0.100    | 0.20          | 0.75      | 108                            | 806               | 63   | 13 618              | 2 157.1                    | 1976         | 76 08                          |
| 65    | 5.49                        | 0.090    | 0.40          | 0.63      | 186                            | 829               | 66   | 25 930              | 2 783.1                    | 1977         | 78 01 - GPP                    |
| 128   | 4.88                        | 0.120    | 0.20          | 0.75      | 113                            | 825               | 60   | 12 360              | 2 572.2                    | 1977         | 85 12 - GPP                    |
| 64    | 16.34                       | 0.090    | 0.20          | 0.68      | 167                            | 827               | 63   | 21 130              | 2 594.2                    | 1977         | 82 12 - GPP                    |
| 64    | 8.94                        | 0.100    | 0.16          | 0.68      | 151                            | 828               | 60   | 17 880              | 2 434.2                    | 1977         | 82 11 - GPP                    |
| 64    | 5.80                        | 0.094    | 0.12          | 0.60      | 172                            | 825               | 59   | 18 130              | 2 673.5                    | 1978         | 82 12 - GPP                    |
| 192   | 11.07                       | 0.080    | 0.23          | 0.73      | 115                            | 802               | 58   | 14 266              | 2 155.9                    | 1981         | 85 03                          |
| 64    | 5.40                        | 0.090    | 0.20          | 0.73      | 113                            | 811               | 64   | 15 000              | 2 454.5                    | 1981         | 84 12 - GPP                    |
| 64    | 7.00                        | 0.100    | 0.20          | 0.73      | 130                            | 810               | 66   | 15 868              | 2 518.5                    | 1981         | 82 04 - GPP                    |
| 64    | 9.00                        | 0.090    | 0.20          | 0.78      | 91                             | 806               | 68   | 15 343              | 2 572.1                    | 1981         | 84 07 - SUSP 83 02             |
| 64    | 11.00                       | 0.110    | 0.15          | 0.71      | 160                            | 805               | 60   | 19 075              | 2 154.3                    | 1982         | 83 11                          |
| 64    | 12.00                       | 0.090    | 0.15          | 0.74      | 131                            | 785               | 72   | 27 852              | 2 762.3                    | 1983         | 84 09                          |
| 97    | 4.32                        | 0.135    | 0.31          | 0.64      |                                |                   |      | 27 022              | 2 745.6                    | 1969         | 83 10 - GPP                    |
| 64    | 3.00                        | 0.180    | 0.35          | 0.80      | 54                             | 885               | 46   | 10 305              | 1 482.8                    | 1982         | 83 01                          |
| 128   | 6.12                        | 0.190    | 0.31          | 0.79      | 90                             | 879               | 50   | 10 711              | 1 518.3                    | 1979         | 81 11                          |
| 64    | 4.80                        | 0.180    | 0.37          | 0.80      | 60                             | 857               | 46   | 10 759              | 1 577.0                    | 1981         | 84 07                          |
| 64    | 2.00                        | 0.170    | 0.40          | 0.80      | 72                             | 855               | 46   | 10 615              | 1 557.6                    | 1982         | 82 10                          |
| 64    | 1.50                        | 0.160    | 0.40          | 0.88      | 46                             | 891               | 41   | 7 600               | 1 535.9                    | 1984         | 85 10                          |
| 312   | 1.25                        | 0.173    | 0.26          | 0.84      | 44                             | 876               | 49   | 10 000              | 1 415.2                    | 1956         | 81 12 - GPP                    |
| 64    | 0.90                        | 0.130    | 0.50          | 0.94      | 20                             | 825               | 38   | 2 500               | 1 201.0                    | 1985         | 85 08                          |
| 65    | 17.37                       | 0.140    | 0.25          | 0.80      | 51                             | 870               | 52   | 9 480               | 1 417.9                    | 1964         | 75 12 - ABAND 75 02            |

TABLE 2-4

| FIELD<br>POOL                          | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>ROWLEY 032-20W4<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE C                      | 364.0                          | 0.10     |          | 36.4                           |                                | 36.4                           | 9.1                            | 27.3                                 |
| PEKISKD A                              | 8 760.0                        | 0.03     |          | 262.0                          |                                | 262.0                          | 161.7                          | 100.3                                |
| PEKISKD B                              | 61.9                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| <b>ROYAL 053-15W4</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING D                               | 41.5                           | 0.10     |          | 4.2                            |                                | 4.2                            | 0.4                            | 3.8                                  |
| VIKING F                               | 110.0                          | 0.10     |          | 11.0                           |                                | 11.0                           | 0.2                            | 10.8                                 |
| <b>RYCROFT 077-05W6</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| GETHING B                              | 144.0                          | 0.10     |          | 14.4                           |                                | 14.4                           | 0.2                            | 14.2                                 |
| CHARLIE LAKE A                         | 2 100.0                        | 0.10     |          | 210.0                          | ERSD                           | 210.0                          | 75.9                           | 134.1                                |
| CHARLIE LAKE B                         | 149.0                          | 0.10     |          | 14.9                           |                                | 14.9                           | 7.3                            | 7.6                                  |
| CHARLIE LAKE C                         | 36.8                           | 0.10     |          | 3.7                            |                                | 3.7                            | 0.9                            | 2.8                                  |
| CHARLIE LAKE D                         | 285.0                          | 0.10     |          | 28.5                           |                                | 28.5                           | 4.5                            | 24.0                                 |
| CHARLIE LAKE F                         | 403.0                          | 0.20     |          | 80.6                           |                                | 80.6                           |                                | 80.6                                 |
| CHARLIE LAKE G                         | 38.1                           | 0.10     |          | 3.8                            |                                | 3.8                            | 1.9                            | 1.9                                  |
| <b>SADDLE HILLS 076-08W6</b>           |                                |          |          |                                |                                |                                |                                |                                      |
| CHARLIE LAKE A                         | 349.0                          | 0.10     |          | 34.9                           |                                | 34.9                           | 7.7                            | 27.2                                 |
| CHARLIE LAKE B                         | 169.0                          | 0.10     |          | 16.9                           |                                | 16.9                           | 4.1                            | 12.8                                 |
| CHARLIE LAKE C                         | 123.0                          | 0.10     |          | 12.3                           |                                | 12.3                           |                                | 12.3                                 |
| CHARLIE LAKE D                         | 31.2                           | 0.10     |          | 3.1                            |                                | 3.1                            | 0.3                            | 2.8                                  |
| <b>SAKWATAMAU 063-14W5</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| GETHING A                              | 1 350.0                        | 0.10     |          | 135.0                          |                                | 135.0                          | 49.7                           | 85.3                                 |
| GETHING B                              | 69.3                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| <b>SAMSON 044-24W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE A                            | 1 460.0                        | <0.03    |          | 36.7                           |                                | 36.7                           | 36.7                           |                                      |
| <b>SAWN LAKE 091-12W5</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A                          | 1 950.0                        | 0.30     |          | 585.0                          |                                | 585.0                          | 76.8                           | 508.2                                |
| SLAVE POINT U                          | 5 860.0                        | <0.25    |          | 1 460.0                        |                                | 1 460.0                        | 58.7                           | 1 401.3                              |
| <b>SEAL 082-14W5</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A                          | 1 400.0                        | 0.40     |          | 560.0                          |                                | 560.0                          | 256.3                          | 303.7                                |
| <b>SEIU LAKE 025-18W4</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE C                      | 117.0                          | <0.05    |          | 5.8                            |                                | 5.8                            | 5.8                            |                                      |
| LOWER MANNVILLE G                      | 776.0                          | 0.05     |          | 38.8                           |                                | 38.8                           | 5.4                            | 33.4                                 |
| <b>SENEX 092-04W5</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER A                            | 1 570.0                        | 0.05     |          | 78.8                           |                                | 78.8                           | 33.3                           | 45.5                                 |
| <b>SHANE 077-02W6</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| KISKATINAW<br>SANDSTONE A              | 67.2                           | 0.10     |          | 6.7                            |                                | 6.7                            | 4.4                            | 2.3                                  |
| <b>SHEKILIE 118-08W6</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| MUSKEG A                               | 95.3                           | 0.20     |          | 19.1                           |                                | 19.1                           | 16.3                           | 2.8                                  |
| MUSKEG C                               | 233.0                          | 0.20     |          | 46.6                           |                                | 46.6                           | 5.9                            | 40.7                                 |
| MUSKEG D                               | 280.0                          | 0.20     |          | 56.0                           |                                | 56.0                           | 0.7                            | 55.3                                 |
| MUSKEG E                               | 213.0                          | 0.20     |          | 42.6                           |                                | 42.6                           | 0.8                            | 41.8                                 |
| MUSKEG F                               | 186.0                          | 0.20     |          | 37.2                           |                                | 37.2                           | 5.3                            | 31.9                                 |
| MUSKEG G                               | 409.0                          | 0.20     |          | 81.8                           |                                | 81.8                           | 7.2                            | 74.6                                 |
| KEG RIVER A                            | 504.0                          | 0.40     |          | 202.0                          |                                | 202.0                          | 125.1                          | 76.9                                 |
| KEG RIVER B                            | 445.0                          | <0.16    |          | 67.4                           |                                | 67.4                           | 67.4                           |                                      |
| KEG RIVER C                            | 636.0                          | 0.40     |          | 254.0                          |                                | 254.0                          | 126.3                          | 127.7                                |
| KEG RIVER D                            | 477.0                          | 0.40     |          | 191.0                          |                                | 191.0                          | 136.4                          | 54.6                                 |
| KEG RIVER E                            | 159.0                          | <0.07    |          | 9.6                            |                                | 9.6                            | 9.6                            |                                      |
| KEG RIVER F                            | 238.0                          | 0.30     |          | 71.4                           |                                | 71.4                           | 44.3                           | 27.1                                 |
| KEG RIVER G                            | 111.0                          | 0.35     |          | 38.9                           |                                | 38.9                           | 31.0                           | 7.9                                  |
| KEG RIVER H                            | 121.0                          | 0.35     |          | 42.4                           |                                | 42.4                           | 21.3                           | 21.1                                 |
| KEG RIVER I                            | 229.0                          | 0.25     |          | 57.3                           |                                | 57.3                           | 10.5                           | 46.8                                 |
| KEG RIVER J                            | 388.0                          | 0.35     |          | 136.0                          |                                | 136.0                          | 69.2                           | 66.8                                 |
| KEG RIVER K                            | 272.0                          | 0.30     |          | 81.6                           |                                | 81.6                           | 23.4                           | 58.2                                 |
| KEG RIVER L                            | 75.0                           | 0.25     |          | 18.8                           |                                | 18.8                           | 10.0                           | 8.8                                  |
| KEG RIVER M                            | 700.0                          | 0.10     |          | 70.0                           |                                | 70.0                           | 26.9                           | 43.1                                 |
| KEG RIVER N                            | 50.0                           | 0.35     |          | 17.5                           |                                | 17.5                           | 7.3                            | 10.2                                 |
| KEG RIVER O                            | 525.0                          | 0.15     |          | 78.8                           |                                | 78.8                           | 10.1                           | 68.7                                 |
| KEG RIVER P                            | 754.0                          | 0.40     |          | 302.0                          |                                | 302.0                          | 22.5                           | 279.5                                |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 65    | 6.10                        | 0.150    | 0.25          | 0.82      | 66                             | 870               | 54   | 7 960               | 1 360.3                    | 1977         | 78 02                          |
| 1 812 | 11.64                       | 0.069    | 0.30          | 0.86      | 70                             | 870               | 50   | 10 070              | 1 365.5                    | 1960         | 73 06 - GPP                    |
| 64    | 1.50                        | 0.100    | 0.25          | 0.86      | 43                             | 870               | 49   | 7 677               | 1 363.3                    | 1981         | 82 12 - SUSP 82 09             |
| 64    | 0.80                        | 0.180    | 0.50          | 0.90      | 40                             | 840               | 30   | 4 052               | 650.9                      | 1982         | 83 03 - GPP                    |
| 128   | 1.14                        | 0.210    | 0.45          | 0.80      | 40                             | 848               | 33   | 4 525               | 615.9                      | 1980         | 84 08                          |
| 64    | 3.50                        | 0.120    | 0.37          | 0.85      | 60                             | 811               | 50   | 10 649              | 1 234.5                    | 1983         | 84 03 - SUSP 84 09             |
| 1 010 | 2.06                        | 0.139    | 0.13          | 0.83      | 62                             | 889               | 54   | 12 774              | 1 376.3                    | 1981         | 85 06                          |
| 128   | 1.75                        | 0.150    | 0.48          | 0.85      | 62                             | 829               | 54   | 13 291              | 1 416.0                    | 1983         | 84 12                          |
| 64    | 0.90                        | 0.130    | 0.37          | 0.78      | 90                             | 865               | 37   | 10 485              | 1 414.7                    | 1982         | 83 05                          |
| 192   | 2.93                        | 0.127    | 0.53          | 0.85      | 62                             | 829               | 54   | 13 116              | 1 414.4                    | 1983         | 84 12                          |
| 128   | 2.23                        | 0.200    | 0.16          | 0.84      | 63                             | 845               | 54   | 10 866              | 1 412.0                    | 1984         | 85 11                          |
| 64    | 2.50                        | 0.080    | 0.65          | 0.85      | 62                             | 829               | 54   | 10 866              | 1 421.3                    | 1984         | 85 07                          |
| 192   | 1.44                        | 0.200    | 0.19          | 0.78      | 91                             | 845               | 72   | 15 134              | 1 749.6                    | 1984         | 85 07                          |
| 64    | 2.40                        | 0.170    | 0.17          | 0.78      | 91                             | 845               | 72   | 15 134              | 1 757.4                    | 1984         | 85 07                          |
| 64    | 2.20                        | 0.140    | 0.20          | 0.78      | 91                             | 845               | 72   | 15 134              | 1 727.1                    | 1982         | 85 07                          |
| 64    | 0.59                        | 0.129    | 0.20          | 0.80      | 70                             | 835               | 70   | 8 750               | 1 724.4                    | 1982         | 84 05                          |
| 938   | 1.37                        | 0.190    | 0.70          | 0.79      | 142                            | 892               | 61   | 13 170              | 1 725.0                    | 1977         | 85 10                          |
| 65    | 1.43                        | 0.120    | 0.25          | 0.83      | 142                            | 892               | 59   | 13 090              | 1 664.5                    | 1976         | 82 12 - SUSP 76 10             |
| 324   | 3.99                        | 0.186    | 0.25          | 0.81      | 50                             | 887               | 60   | 10 830              | 1 465.5                    | 1953         | 83 12 - SUSP 80 05             |
| 256   | 14.81                       | 0.073    | 0.19          | 0.87      | 57                             | 822               | 38   | 13 169              | 1 597.7                    | 1983         | 84 11                          |
| 1 088 | 14.43                       | 0.066    | 0.35          | 0.87      | 57                             | 822               | 38   | 13 521              | 1 604.8                    | 1984         | 85 07                          |
| 562   | 4.50                        | 0.092    | 0.30          | 0.86      | 42                             | 830               | 68   | 18 287              | 1 809.4                    | 1974         | 83 12                          |
| 32    | 3.05                        | 0.200    | 0.30          | 0.85      | 74                             | 844               | 47   | 10 340              | 1 377.1                    | 1960         | 69 05 - ABAND 69 10            |
| 128   | 6.29                        | 0.180    | 0.37          | 0.85      | 66                             | 857               | 38   | 9 270               | 1 366.0                    | 1979         | 82 12                          |
| 258   | 15.54                       | 0.065    | 0.30          | 0.86      | 55                             | 829               | 31   | 13 410              | 1 266.2                    | 1969         | 78 04                          |
| 64    | 1.25                        | 0.160    | 0.30          | 0.75      | 128                            | 815               | 70   | 14 360              | 1 473.9                    | 1977         | 77 12 - GPP                    |
| 31    | 5.79                        | 0.089    | 0.11          | 0.67      | 155                            | 811               | 83   | 17 730              | 1 746.8                    | 1971         | 75 03 - SUSP 84 10             |
| 64    | 7.60                        | 0.084    | 0.15          | 0.67      | 135                            | 811               | 83   | 13 593              | 1 664.7                    | 1981         | 82 07 - SUSP 85 01             |
| 64    | 10.50                       | 0.075    | 0.17          | 0.67      | 155                            | 810               | 83   | 12 155              | 1 739.0                    | 1983         | 83 11 - SUSP 84 07             |
| 64    | 7.80                        | 0.070    | 0.13          | 0.70      | 155                            | 810               | 83   | 17 107              | 1 701.4                    | 1983         | 84 03 - SUSP 84 10             |
| 64    | 8.40                        | 0.060    | 0.14          | 0.67      | 145                            | 826               | 75   | 18 177              | 1 767.2                    | 1984         | 84 11                          |
| 64    | 11.40                       | 0.092    | 0.13          | 0.70      | 120                            | 834               | 76   | 13 250              | 1 787.4                    | 1984         | 85 08                          |
| 13    | 67.06                       | 0.094    | 0.12          | 0.70      | 132                            | 839               | 83   | 17 800              | 1 699.3                    | 1970         | 71 09                          |
| 12    | 60.62                       | 0.100    | 0.08          | 0.68      | 151                            | 820               | 81   | 17 510              | 1 756.6                    | 1971         | 82 12 - SUSP 79 02             |
| 26    | 40.75                       | 0.100    | 0.10          | 0.68      | 170                            | 839               | 83   | 18 310              | 1 727.6                    | 1971         | 71 12 - GPP                    |
| 15    | 94.49                       | 0.065    | 0.15          | 0.63      | 176                            | 820               | 79   | 18 600              | 1 728.2                    | 1971         | 71 12                          |
| 5     | 56.08                       | 0.095    | 0.10          | 0.63      | 191                            | 806               | 79   | 19 910              | 1 754.7                    | 1972         | 74 12 - SUSP 74 11             |
| 5     | 113.39                      | 0.073    | 0.14          | 0.69      | 138                            | 825               | 84   | 18 580              | 1 748.0                    | 1972         | 82 12 - SUSP 85 06             |
| 4     | 38.16                       | 0.107    | 0.10          | 0.68      | 106                            | 834               | 83   | 18 685              | 1 802.0                    | 1974         | 75 10                          |
| 9     | 30.44                       | 0.070    | 0.10          | 0.70      | 132                            | 834               | 80   | 15 300              | 1 777.0                    | 1979         | 82 12                          |
| 16    | 28.40                       | 0.090    | 0.20          | 0.70      | 120                            | 834               | 83   | 17 940              | 1 715.8                    | 1979         | 82 12 - GPP                    |
| 64    | 15.00                       | 0.070    | 0.15          | 0.68      | 150                            | 825               | 74   | 15 300              | 1 765.5                    | 1979         | 80 05 - GPP                    |
| 25    | 24.40                       | 0.075    | 0.15          | 0.70      | 132                            | 819               | 83   | 16 304              | 1 722.0                    | 1980         | 82 12 - GPP                    |
| 17    | 8.60                        | 0.080    | 0.20          | 0.80      | 138                            | 823               | 86   | 16 104              | 1 825.3                    | 1980         | 82 01                          |
| 10    | 94.00                       | 0.100    | 0.15          | 0.80      | 132                            | 834               | 83   | 16 629              | 1 789.5                    | 1980         | 85 12 - GPP                    |
| 12    | 7.00                        | 0.090    | 0.15          | 0.78      | 142                            | 814               | 81   | 14 801              | 1 747.6                    | 1980         | 82 01 - SUSP 84 10             |
| 11    | 90.00                       | 0.080    | 0.15          | 0.80      | 126                            | 825               | 85   | 17 367              | 1 777.0                    | 1980         | 84 12 - GPP                    |
| 16    | 99.02                       | 0.080    | 0.15          | 0.70      | 124                            | 825               | 86   | 16 003              | 1 768.8                    | 1980         | 82 12 - SUSP 84 10             |

TABLE 2-4

| FIELD<br>POOL                    | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| SHEKILIE 118-08W6<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER Q                      | 500.0                          | 0.30     |          | 150.0                          |                                | 150.0                          | 38.4                           | 111.6                                |
| KEG RIVER R                      | 350.0                          | 0.40     |          | 140.0                          |                                | 140.0                          | 16.2                           | 123.8                                |
| KEG RIVER S                      | 41.2                           | 0.30     |          | 12.4                           |                                | 12.4                           | 7.5                            | 4.9                                  |
| KEG RIVER T                      | 450.0                          | 0.40     |          | 180.0                          |                                | 180.0                          | 38.9                           | 141.1                                |
| KEG RIVER U                      | 250.0                          | 0.35     |          | 88.0                           |                                | 88.0                           | 48.8                           | 39.2                                 |
| KEG RIVER V                      | 113.0                          | 0.35     |          | 39.6                           |                                | 39.6                           | 26.7                           | 12.9                                 |
| KEG RIVER W                      | 661.0                          | 0.15     |          | 99.0                           |                                | 99.0                           | 51.9                           | 47.1                                 |
| KEG RIVER X                      | 94.1                           | 0.30     |          | 28.2                           |                                | 28.2                           | 14.0                           | 14.2                                 |
| KEG RIVER Y                      | 650.0                          | 0.40     |          | 260.0                          |                                | 260.0                          | 106.7                          | 153.3                                |
| KEG RIVER Z                      | 79.4                           | 0.30     |          | 23.8                           |                                | 23.8                           | 13.3                           | 10.5                                 |
| KEG RIVER AA                     | 282.0                          | 0.20     |          | 56.4                           |                                | 56.4                           | 12.0                           | 44.4                                 |
| KEG RIVER BB                     | 139.0                          | 0.20     |          | 27.8                           |                                | 27.8                           | 7.1                            | 20.7                                 |
| KEG RIVER CC                     | 270.0                          | 0.35     |          | 94.5                           |                                | 94.5                           | 31.0                           | 63.5                                 |
| KEG RIVER EE                     | 200.0                          | 0.35     |          | 70.0                           |                                | 70.0                           | 22.8                           | 47.2                                 |
| KEG RIVER FF                     | 2 680.0                        | 0.25     |          | 670.0                          |                                | 670.0                          | 1.7                            | 668.3                                |
| KEG RIVER GG                     | 320.0                          | 0.30     |          | 96.0                           |                                | 96.0                           | 24.2                           | 71.8                                 |
| KEG RIVER HH                     | 583.0                          | 0.30     |          | 175.0                          |                                | 175.0                          | 1.9                            | 173.1                                |
| KEG RIVER II                     | 205.0                          | 0.20     |          | 41.0                           |                                | 41.0                           | 3.7                            | 37.3                                 |
| KEG RIVER JJ                     | 98.5                           | 0.30     |          | 30.0                           |                                | 30.0                           | 5.1                            | 24.9                                 |
| KEG RIVER KK                     | 759.0                          | 0.20     |          | 152.0                          |                                | 152.0                          | 7.7                            | 144.3                                |
| KEG RIVER LL                     | 190.0                          | 0.30     |          | 57.0                           |                                | 57.0                           | 18.6                           | 38.4                                 |
| KEG RIVER MM                     | 153.0                          | 0.30     |          | 45.9                           |                                | 45.9                           | 18.2                           | 27.7                                 |
| KEG RIVER NN                     | 200.0                          | 0.40     |          | 80.0                           |                                | 80.0                           | 26.0                           | 54.0                                 |
| KEG RIVER PP                     | 191.0                          | 0.30     |          | 57.3                           |                                | 57.3                           | 12.7                           | 44.6                                 |
| KEG RIVER QQ                     | 795.0                          | 0.40     |          | 318.0                          |                                | 318.0                          | 230.4                          | 87.6                                 |
| KEG RIVER RR                     | 210.0                          | 0.35     |          | 73.5                           |                                | 73.5                           | 28.6                           | 44.9                                 |
| KEG RIVER SS                     | 190.0                          | 0.30     |          | 57.0                           |                                | 57.0                           | 6.0                            | 51.0                                 |
| KEG RIVER TT                     | 530.0                          | 0.30     |          | 159.0                          |                                | 159.0                          | 29.7                           | 129.3                                |
| KEG RIVER UU                     | 400.0                          | 0.40     |          | 160.0                          |                                | 160.0                          | 20.2                           | 139.8                                |
| KEG RIVER VV                     | 250.0                          | 0.30     |          | 75.0                           |                                | 75.0                           | 13.5                           | 61.5                                 |
| KEG RIVER WW                     | 1 500.0                        | 0.25     |          | 375.0                          |                                | 375.0                          | 10.1                           | 364.9                                |
| KEG RIVER XX                     | 45.0                           | 0.30     |          | 13.5                           |                                | 13.5                           | 3.9                            | 9.6                                  |
| SHOULDICE 020-23W4               |                                |          |          |                                |                                |                                |                                |                                      |
| BOW ISLAND A                     | 78.6                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| GLAUCONITIC A                    | 204.0                          | 0.10     |          | 20.4                           |                                | 20.4                           | 8.8                            | 11.6                                 |
| GLAUCONITIC B                    | 29.7                           | 0.10     |          | 3.0                            |                                | 3.0                            | 0.2                            | 2.8                                  |
| ELLERSLIE A                      | 61.2                           | 0.10     |          | 6.1                            |                                | 6.1                            | 1.9                            | 4.2                                  |
| ELLERSLIE B                      | 82.9                           | 0.10     |          | 8.3                            |                                | 8.3                            | 0.1                            | 8.2                                  |
| ELLERSLIE C                      | 370.0                          | 0.15     |          | 55.5                           |                                | 55.5                           | 23.8                           | 31.7                                 |
| ELLERSLIE E                      | 172.0                          | 0.10     |          | 17.2                           |                                | 17.2                           | 0.7                            | 16.5                                 |
| SIMONETTE 063-26W5               |                                |          |          |                                |                                |                                |                                |                                      |
| DUNVEGAN A                       | 1 590.0                        | 0.10     |          | 159.0                          |                                | 159.0                          | 63.1                           | 95.9                                 |
| DUNVEGAN B                       | 109.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| DUNVEGAN F                       | 73.0                           | 0.10     |          | 7.3                            |                                | 7.3                            | 0.4                            | 6.9                                  |
| WABAMUN C                        | 1 510.0                        | 0.05     |          | 75.5                           |                                | 75.5                           | 29.3                           | 46.2                                 |
| D-3                              | 18 000.0                       | 0.34     |          | 6 100.0                        | ERSO                           | 6 100.0                        | 5 558.5                        | 541.5                                |
| D-3 B                            | 526.0                          | 0.30     |          | 158.0                          |                                | 158.0                          | 18.6                           | 139.4                                |
| SINCLAIR 075-12W6                |                                |          |          |                                |                                |                                |                                |                                      |
| DOE CREEK B                      | 1 210.0                        | 0.10     |          | 121.0                          |                                | 121.0                          | 2.4                            | 118.6                                |
| SKARD 057-19W4                   |                                |          |          |                                |                                |                                |                                |                                      |
| COOKING LAKE                     | 175.0                          | 0.15     |          | 26.3                           |                                | 26.3                           | 24.0                           | 2.3                                  |
| SLAVE 084-14W5                   |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT G                    | 3 030.0                        | 0.30     |          | 909.0                          |                                | 909.0                          | 213.0                          | 696.0                                |
| SLAVE POINT H                    | 5 080.0                        | 0.30     |          | 1 520.0                        |                                | 1 520.0                        | 209.8                          | 1 310.2                              |
| SLAVE POINT L                    | 1 330.0                        | 0.30     |          | 399.0                          |                                | 399.0                          | 41.2                           | 357.8                                |
| SNIPE LAKE 071-18W5              |                                |          |          |                                |                                |                                |                                |                                      |
| BEAVERHILL LAKE<br>WATER FLOOD   | 31 000.0                       | 0.12     | 0.28     | 3 720.0                        | 8 680.0                        | 12 400.0                       | 7 939.2                        | 4 460.8                              |
| SOUNDING 030-09W4                |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE D                | 215.0                          | 0.05     |          | 10.8                           |                                | 10.8                           | 1.4                            | 9.4                                  |
| SOUSA 113-04W6                   |                                |          |          |                                |                                |                                |                                |                                      |
| SULPHUR POINT A                  | 319.0                          | 0.15     |          | 47.9                           |                                | 47.9                           | 0.3                            | 47.6                                 |
| KEG RIVER A                      | 284.0                          | <0.04    |          | 11.2                           |                                | 11.2                           | 11.2                           |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 11    | 64.73                       | 0.120    | 0.14          | 0.68      | 122                            | 835               | 93   | 14 879              | 1 714.0                    | 1981         | 83 12 - GPP                    |
| 10    | 77.00                       | 0.080    | 0.15          | 0.68      | 143                            | 820               | 50   | 18 292              | 1 750.5                    | 1981         | 83 06                          |
| 7     | 28.00                       | 0.040    | 0.25          | 0.70      | 115                            | 835               | 87   | 16 094              | 1 832.0                    | 1981         | 83 12 - SUSP 84 08             |
| 12    | 68.90                       | 0.080    | 0.15          | 0.80      | 140                            | 826               | 86   | 18 615              | 1 759.3                    | 1980         | 82 01 - GPP                    |
| 11    | 39.70                       | 0.100    | 0.17          | 0.69      | 140                            |                   | 86   | 19 919              | 1 773.0                    | 1980         | 82 01                          |
| 12    | 17.60                       | 0.090    | 0.15          | 0.70      | 150                            | 825               | 83   | 17 730              | 1 685.5                    | 1979         | 83 12 - GPP                    |
| 64    | 31.90                       | 0.070    | 0.32          | 0.68      | 176                            | 845               | 83   | 20 720              | 1 746.0                    | 1980         | 84 12                          |
| 11    | 28.30                       | 0.060    | 0.30          | 0.72      | 95                             | 845               | 82   | 17 548              | 1 747.4                    | 1981         | 83 12 - GPP                    |
| 29    | 85.60                       | 0.050    | 0.20          | 0.65      | 151                            | 810               | 82   | 20 400              | 1 795.7                    | 1980         | 84 09                          |
| 10    | 9.80                        | 0.120    | 0.10          | 0.75      |                                | 830               | 68   | 18 270              | 1 816.0                    | 1969         | 83 12 - SUSP 84 02             |
| 64    | 15.00                       | 0.060    | 0.30          | 0.70      | 138                            | 833               | 69   | 15 440              | 1 817.5                    | 1981         | 83 12 - GPP                    |
| 9     | 51.00                       | 0.050    | 0.15          | 0.71      | 113                            | 825               | 82   | 15 598              | 1 712.5                    | 1981         | 85 12 - GPP                    |
| 9     | 61.50                       | 0.080    | 0.15          | 0.70      | 138                            | 826               | 80   | 17 066              | 1 721.8                    | 1982         | 84 05                          |
| 11    | 41.80                       | 0.080    | 0.20          | 0.68      | 130                            | 835               | 95   | 15 949              | 1 828.2                    | 1982         | 84 06                          |
| 64    | 55.90                       | 0.120    | 0.12          | 0.71      | 132                            | 834               | 83   | 14 257              | 1 765.6                    | 1983         | 83 10 - SUSP 85 09             |
| 16    | 38.00                       | 0.090    | 0.14          | 0.68      | 113                            | 834               | 74   | 16 928              | 1 814.0                    | 1983         | 85 12                          |
| 64    | 15.30                       | 0.100    | 0.15          | 0.70      | 138                            | 826               | 80   | 18 844              | 1 728.4                    | 1983         | 84 04 - SUSP 85 05             |
| 16    | 31.50                       | 0.070    | 0.17          | 0.70      | 138                            | 826               | 80   | 15 540              | 1 741.3                    | 1983         | 85 12                          |
| 15    | 11.00                       | 0.090    | 0.16          | 0.79      | 180                            | 831               | 63   | 16 075              | 1 760.9                    | 1983         | 85 10                          |
| 64    | 24.50                       | 0.080    | 0.11          | 0.68      | 146                            | 821               | 83   | 15 955              | 1 818.7                    | 1984         | 84 08                          |
| 8     | 46.50                       | 0.085    | 0.09          | 0.66      | 133                            | 818               | 70   | 19 936              | 1 783.0                    | 1984         | 85 08                          |
| 16    | 32.20                       | 0.050    | 0.15          | 0.70      | 130                            | 838               | 49   | 15 172              | 1 760.3                    | 1983         | 85 12                          |
| 12    | 32.50                       | 0.090    | 0.10          | 0.63      | 111                            | 824               | 76   | 19 805              | 1 763.5                    | 1983         | 84 11                          |
| 64    | 4.50                        | 0.100    | 0.08          | 0.72      | 100                            | 848               | 79   | 14 766              | 1 832.3                    | 1983         | 83 12                          |
| 30    | 55.50                       | 0.073    | 0.10          | 0.72      |                                |                   | 17   | 17 102              | 1 742.0                    | 1971         | 77 05                          |
| 4     | 42.00                       | 0.180    | 0.10          | 0.77      | 112                            | 870               | 82   | 19 097              | 1 840.0                    | 1983         | 85 07                          |
| 5     | 71.00                       | 0.080    | 0.15          | 0.77      | 96                             | 845               | 71   | 18 030              | 1 780.0                    | 1983         | 85 01                          |
| 12    | 63.30                       | 0.120    | 0.17          | 0.70      | 130                            | 830               | 49   | 16 655              | 1 783.8                    | 1983         | 85 06                          |
| 8     | 93.80                       | 0.090    | 0.20          | 0.74      | 146                            | 827               | 83   | 13 891              | 1 831.5                    | 1983         | 85 06                          |
| 17    | 24.80                       | 0.100    | 0.14          | 0.69      | 130                            | 824               | 98   | 15 375              | 1 824.8                    | 1984         | 85 11                          |
| 64    | 46.80                       | 0.086    | 0.19          | 0.72      | 138                            | 826               | 80   | 15 582              | 1 671.9                    | 1984         | 85 03                          |
| 6     | 33.08                       | 0.041    | 0.21          | 0.70      | 138                            | 826               | 80   | 15 582              | 1 735.1                    | 1984         | 85 07                          |
| 64    | 1.50                        | 0.150    | 0.40          | 0.91      | 32                             | 847               | 40   | 7 729               | 1 393.0                    | 1984         | 84 09 - ABAND 84 03            |
| 64    | 3.60                        | 0.160    | 0.30          | 0.79      | 64                             | 845               | 37   | 14 000              | 1 669.2                    | 1981         | 82 07                          |
| 64    | 0.60                        | 0.140    | 0.35          | 0.85      | 59                             | 871               | 42   | 13 503              | 1 623.5                    | 1982         | 83 02 - SUSP 83 02             |
| 64    | 1.60                        | 0.120    | 0.40          | 0.83      | 46                             | 838               | 40   | 13 291              | 1 658.0                    | 1981         | 83 02                          |
| 64    | 1.50                        | 0.160    | 0.35          | 0.83      | 66                             | 859               | 44   | 14 490              | 1 717.3                    | 1981         | 82 09 - SUSP 83 01             |
| 439   | 1.45                        | 0.143    | 0.51          | 0.83      | 96                             | 854               | 40   | 13 876              | 1 584.0                    | 1981         | 85 04                          |
| 64    | 4.50                        | 0.120    | 0.40          | 0.83      | 66                             | 873               | 51   | 14 414              | 1 679.8                    | 1982         | 83 09                          |
| 320   | 7.17                        | 0.130    | 0.35          | 0.82      | 77                             | 822               | 61   | 13 337              | 1 991.4                    | 1980         | 85 11                          |
| 64    | 3.30                        | 0.098    | 0.36          | 0.82      | 70                             | 822               | 61   | 13 200              | 1 927.0                    | 1980         | 83 12 - ABAND 82 11            |
| 64    | 2.80                        | 0.087    | 0.35          | 0.72      | 97                             | 825               | 61   | 13 224              | 1 884.0                    | 1984         | 85 09                          |
| 64    | 44.50                       | 0.100    | 0.17          | 0.64      | 172                            | 825               | 96   | 32 890              | 3 351.0                    | 1964         | 85 09 - GPP                    |
| 3 136 | 29.00                       | 0.062    | 0.16          | 0.38      | 552                            | 792               | 105  | 35 670              | 3 533.5                    | 1958         | 85 09                          |
| 64    | 28.60                       | 0.090    | 0.16          | 0.38      | 552                            | 793               | 95   | 32 000              | 3 547.0                    | 1982         | 83 04                          |
| 256   | 3.99                        | 0.210    | 0.40          | 0.94      | 38                             | 836               | 28   | 4 300               | 793.3                      | 1984         | 85 08                          |
| 100   | 5.12                        | 0.050    | 0.25          | 0.91      | 28                             | 860               | 41   | 8 480               | 1 119.2                    | 1952         | 81 12 - GPP                    |
| 965   | 6.23                        | 0.080    | 0.26          | 0.85      | 45                             | 830               | 50   | 17 253              | 1 707.2                    | 1981         | 85 11                          |
| 832   | 10.08                       | 0.085    | 0.19          | 0.88      | 32                             | 827               | 50   | 17 200              | 1 744.5                    | 1982         | 85 08                          |
| 256   | 6.45                        | 0.109    | 0.17          | 0.89      | 32                             | 827               | 50   | 6 584               | 1 668.9                    | 1984         | 85 02                          |
| 7 173 | 10.49                       | 0.068    | 0.27          | 0.83      | 59                             | 839               | 88   | 26 340              | 2 601.2                    | 1962         | 77 04                          |
| 64    | 2.10                        | 0.250    | 0.29          | 0.90      | 39                             | 873               | 33   | 6 660               | 919.8                      | 1971         | 85 06 - GPP                    |
| 64    | 17.83                       | 0.046    | 0.25          | 0.81      | 74                             | 876               | 72   | 14 070              | 1 414.6                    | 1969         | 71 05 - SUSP 85 03             |
| 22    | 33.22                       | 0.060    | 0.20          | 0.80      | 80                             | 839               | 74   | 15 220              | 1 540.5                    | 1969         | 84 12 - ABAND 84 01            |

TABLE 2-4

| FIELD<br>POOL                           | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>SOUSA 113-04W6<br/>(CONTINUED)</b>   |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER B                             | 827.0                          | 0.25     |          | 207.0                          |                                | 207.0                          | 2.3                            | 204.7                                |
| KEG RIVER C                             | 308.0                          | 0.25     |          | 77.0                           |                                | 77.0                           | 6.4                            | 70.6                                 |
| KEG RIVER D                             | 390.0                          | 0.06     |          | 83.4                           |                                | 83.4                           | 69.6                           | 13.8                                 |
| KEG RIVER E                             | 250.0                          | 0.20     |          | 50.0                           |                                | 50.0                           | 6.1                            | 43.9                                 |
| KEG RIVER F                             | 891.0                          | 0.10     |          | 89.1                           |                                | 89.1                           | 60.3                           | 28.8                                 |
| KEG RIVER G                             | 926.0                          | <0.01    |          | 1.9                            |                                | 1.9                            | 1.9                            |                                      |
| KEG RIVER H                             | 396.0                          | 0.12     |          | 47.5                           |                                | 47.5                           | 38.3                           | 9.2                                  |
| KEG RIVER I                             | 62.3                           | <0.04    |          | 2.3                            |                                | 2.3                            | 2.3                            |                                      |
| KEG RIVER J                             | 256.0                          | 0.15     |          | 38.4                           |                                | 38.4                           | 0.3                            | 38.1                                 |
| <b>SPIRIT RIVER 078-07W6</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| GETHING A                               | 69.4                           | 0.10     |          | 6.9                            |                                | 6.9                            | 0.1                            | 6.8                                  |
| BALDONNEL A                             | 171.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| CHARLIE LAKE D                          | 240.0                          | 0.10     |          | 24.0                           |                                | 24.0                           | 7.0                            | 17.0                                 |
| CHARLIE LAKE E                          | 398.0                          | 0.10     |          | 39.8                           |                                | 39.8                           | 19.9                           | 19.9                                 |
| CHARLIE LAKE F                          | 54.8                           | 0.10     |          | 5.5                            |                                | 5.5                            | 0.2                            | 5.3                                  |
| CHARLIE LAKE J                          | 36.3                           | 0.20     |          | 7.3                            |                                | 7.3                            | 5.7                            | 1.6                                  |
| CHARLIE LAKE GH&I                       | 135.0                          | 0.10     |          | 13.5                           |                                | 13.5                           | 3.0                            | 10.5                                 |
| HALFWAY D                               | 720.0                          | 0.15     |          | 108.0                          |                                | 108.0                          | 9.1                            | 98.9                                 |
| DOIG A                                  | 6 680.0                        | 0.17     |          | 1 140.0                        |                                | 1 140.0                        | 173.5                          | 966.5                                |
| <b>SPRING COULEE<br/>003-23W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| RUNDLE                                  | 413.0                          | 0.04     |          | 16.5                           |                                | 16.5                           | 13.0                           | 3.5                                  |
| <b>ST. ALBERT-BIG LAKE<br/>053-26W4</b> |                                |          |          |                                |                                |                                |                                |                                      |
| BIG LAKE D-1 A                          | 254.0                          | <0.17    |          | 41.3                           |                                | 41.3                           | 41.3                           |                                      |
| D-1 D                                   | 2 880.0                        | 0.10     |          | 288.0                          |                                | 288.0                          | 107.1                          | 180.9                                |
| BIG LAKE D-2 A                          | 500.0                          | 0.65     |          | 325.0                          |                                | 325.0                          | 283.9                          | 41.1                                 |
| BIG LAKE D-3 A                          | 3 700.0                        | 0.65     |          | 2 400.0                        |                                | 2 400.0                        | 2 117.9                        | 282.1                                |
| ST. ALBERT D-3 B                        | 1 750.0                        | 0.60     |          | 1 050.0                        |                                | 1 050.0                        | 865.3                          | 184.7                                |
| <b>STANMORE 029-11W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B                       | 283.0                          | 0.10     |          | 28.3                           |                                | 28.3                           | 15.1                           | 13.2                                 |
| UPPER MANNVILLE G                       | 356.0                          | 0.03     |          | 10.7                           |                                | 10.7                           | 6.0                            | 4.7                                  |
| UPPER MANNVILLE P                       | 1 730.0                        | 0.05     |          | 86.4                           |                                | 86.4                           | 25.0                           | 61.4                                 |
| UPPER MANNVILLE W                       | 36.5                           | 0.10     |          | 3.7                            |                                | 3.7                            | 0.4                            | 3.3                                  |
| UPPER MANNVILLE A&C                     | 59.6                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LOWER MANNVILLE F                       | 98.0                           | 0.10     |          | 9.9                            |                                | 9.9                            | 7.0                            | 2.9                                  |
| LOWER MANNVILLE H                       | 114.0                          | 0.10     |          | 11.4                           |                                | 11.4                           | 2.4                            | 9.0                                  |
| LOWER MANNVILLE L                       | 148.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LOWER MANNVILLE Q                       | 532.0                          | 0.10     |          | 53.2                           |                                | 53.2                           | 13.5                           | 39.7                                 |
| LOWER MANNVILLE T                       | 171.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LOWER MANNVILLE X                       | 62.2                           | 0.10     |          | 6.2                            |                                | 6.2                            | 3.3                            | 2.9                                  |
| LOWER MANNVILLE Y                       | 130.0                          | <0.03    |          | 3.0                            |                                | 3.0                            | 2.2                            | 0.8                                  |
| LOWER MANNVILLE A&B                     | 193.0                          | 0.06     |          | 11.6                           |                                | 11.6                           | 8.5                            | 3.1                                  |
| <b>STETTLE 038-20W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                       | 1 110.0                        | 0.01     |          | 11.1                           |                                | 11.1                           | 0.6                            | 10.5                                 |
| D-2 A TOTAL                             | 9 370.0                        |          |          | 2 820.0                        | 1 380.0                        | 4 200.0                        | 3 916.5                        | 283.5                                |
| PRIMARY AREA                            | 152.0                          | 0.30     |          | 45.6                           |                                | 45.6                           |                                |                                      |
| WATER FLOOD AREA                        | 9 220.0                        | 0.30     | 0.15     | 2 770.0                        | 1 380.0                        | 4 150.0                        |                                |                                      |
| D-2 B                                   | 95.0                           | 0.15     |          | 14.3                           |                                | 14.3                           | 3.3                            | 11.0                                 |
| D-2 C                                   | 310.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| D-3 A                                   | 6 150.0                        | 0.60     |          | 3 690.0                        |                                | 3 690.0                        | 3 129.6                        | 560.4                                |
| D-3 B                                   | 400.0                          | 0.65     |          | 260.0                          |                                | 260.0                          | 203.9                          | 56.1                                 |
| D-3 D                                   | 106.0                          | 0.60     |          | 63.6                           |                                | 63.6                           | 7.3                            | 56.3                                 |
| D-3 E                                   | 172.0                          | 0.45     |          | 77.4                           |                                | 77.4                           | 1.0                            | 76.4                                 |
| <b>STETTLE NORTH<br/>039-20W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                       | 618.0                          | 0.08     |          | 49.4                           |                                | 49.4                           | 35.7                           | 13.7                                 |
| <b>STETTLE SOUTH<br/>037-20W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| D-2 TOTAL                               | 1 600.0                        |          |          | 288.0                          | 80.0                           | 368.0                          | 269.9                          | 98.1                                 |
| PRIMARY AREA                            | 600.0                          | 0.18     |          | 108.0                          |                                | 108.0                          |                                |                                      |
| WATER FLOOD AREA                        | 1 000.0                        | 0.18     | 0.08     | 180.0                          | 80.0                           | 260.0                          |                                |                                      |
| D-2 B                                   | 132.0                          | 0.18     |          | 23.8                           |                                | 23.8                           | 1.9                            | 21.9                                 |
| D-3                                     | 407.0                          | 0.65     |          | 265.0                          |                                | 265.0                          | 228.0                          | 37.0                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 56.70                       | 0.037    | 0.30          | 0.88      | 30                             | 839               | 70   | 15 000              | 1 494.5                    | 1967         | 85 10                          |
| 16    | 84.70                       | 0.037    | 0.31          | 0.89      | 32                             | 834               | 75   | 14 940              | 1 478.0                    | 1968         | 84 08                          |
| 74    | 67.00                       | 0.045    | 0.28          | 0.87      | 39                             | 844               | 80   | 15 200              | 1 508.8                    | 1969         | 85 12 - GPP                    |
| 16    | 29.26                       | 0.075    | 0.15          | 0.83      | 62                             | 849               | 71   | 14 930              | 1 495.3                    | 1970         | 85 12                          |
| 47    | 50.35                       | 0.054    | 0.19          | 0.87      | 39                             | 844               | 80   | 15 440              | 1 522.6                    | 1970         | 84 12 - GPP                    |
| 42    | 53.28                       | 0.060    | 0.20          | 0.87      | 39                             | 844               | 80   | 15 580              | 1 543.5                    | 1970         | 85 07 - SUSP 84 04             |
| 25    | 62.88                       | 0.040    | 0.29          | 0.87      | 39                             | 844               | 80   | 15 200              | 1 527.0                    | 1970         | 83 12 - GPP                    |
| 11    | 49.01                       | 0.020    | 0.37          | 0.89      | 32                             | 829               | 75   | 14 790              | 1 488.6                    | 1970         | 82 12 - ABAND 81 02            |
| 15    | 70.01                       | 0.040    | 0.30          | 0.87      | 57                             | 849               | 80   | 15 240              | 1 559.7                    | 1970         | 81 05 - SUSP 82 09             |
| 64    | 1.70                        | 0.150    | 0.50          | 0.85      | 66                             | 809               | 20   | 10 904              | 1 388.7                    | 1981         | 83 04                          |
| 64    | 4.42                        | 0.130    | 0.38          | 0.75      | 100                            | 810               | 52   | 9 500               | 1 456.9                    | 1984         | 85 07 - SUSP 85 06             |
| 64    | 3.00                        | 0.200    | 0.20          | 0.78      | 88                             | 839               | 69   | 14 174              | 1 661.7                    | 1980         | 80 12 - GPP                    |
| 320   | 1.82                        | 0.120    | 0.21          | 0.72      | 67                             | 830               | 62   | 13 800              | 1 578.3                    | 1982         | 84 05                          |
| 64    | 2.00                        | 0.090    | 0.42          | 0.82      | 60                             | 830               | 70   | 13 482              | 1 627.0                    | 1983         | 84 08                          |
| 64    | 0.67                        | 0.134    | 0.23          | 0.82      | 64                             | 834               | 66   | 8 200               | 1 473.9                    | 1983         | 85 12                          |
| 128   | 2.06                        | 0.100    | 0.39          | 0.84      | 67                             | 826               | 62   | 12 886              | 1 589.3                    | 1982         | 85 07                          |
| 320   | 2.96                        | 0.130    | 0.27          | 0.80      | 100                            | 837               | 59   | 13 166              | 1 429.3                    | 1983         | 84 10                          |
| 1 553 | 4.15                        | 0.160    | 0.19          | 0.80      | 91                             | 825               | 58   | 13 260              | 1 431.0                    | 1983         | 85 05                          |
| 331   | 2.83                        | 0.070    | 0.25          | 0.84      | 46                             | 855               | 56   | 10 070              | 1 835.5                    | 1950         | 78 10 - SUSP 84 11             |
| 110   | 5.85                        | 0.058    | 0.20          | 0.85      | 70                             | 849               | 53   | 9 310               | 1 225.9                    | 1958         | 83 12 - SUSP 83 12             |
| 240   | 29.46                       | 0.080    | 0.40          | 0.85      | 70                             | 851               | 54   | 9 332               | 1 222.7                    | 1953         | 83 10                          |
| 130   | 16.50                       | 0.034    | 0.22          | 0.88      | 71                             | 844               | 55   | 10 620              | 1 336.5                    | 1956         | 82 12                          |
| 101   | 43.24                       | 0.110    | 0.06          | 0.82      | 62                             | 849               | 58   | 11 240              | 1 463.6                    | 1956         | 82 12 - GPP                    |
| 110   | 22.00                       | 0.098    | 0.09          | 0.81      | 73                             | 855               | 58   | 11 030              | 1 424.9                    | 1953         | 83 12                          |
| 65    | 3.71                        | 0.195    | 0.32          | 0.90      | 42                             | 876               | 38   | 8 880               | 1 043.6                    | 1970         | 71 11 - GPP                    |
| 64    | 4.60                        | 0.206    | 0.35          | 0.90      | 43                             | 876               | 32   | 9 280               | 1 062.2                    | 1976         | 79 12                          |
| 480   | 3.51                        | 0.200    | 0.43          | 0.90      | 56                             | 865               | 37   | 9 408               | 1 048.5                    | 1979         | 85 12 - GPP                    |
| 32    | 2.00                        | 0.120    | 0.50          | 0.95      | 20                             | 910               | 30   | 9 419               | 1 047.2                    | 1978         | 84 11                          |
| 64    | 1.23                        | 0.140    | 0.40          | 0.90      | 47                             | 876               | 27   | 8 620               | 1 046.1                    | 1972         | 78 02 - SUSP 79 02             |
| 65    | 1.83                        | 0.120    | 0.25          | 0.92      | 34                             | 892               | 38   | 9 300               | 1 038.8                    | 1977         | 77 07 - GPP                    |
| 64    | 1.23                        | 0.240    | 0.30          | 0.86      | 51                             | 887               | 37   | 9 240               | 1 045.0                    | 1977         | 79 05                          |
| 64    | 2.00                        | 0.180    | 0.30          | 0.92      | 36                             | 876               | 39   | 6 270               | 1 066.1                    | 1978         | 82 12 - ABAND 81 07            |
| 192   | 2.11                        | 0.220    | 0.33          | 0.89      | 45                             | 863               | 38   | 9 461               | 1 083.6                    | 1980         | 85 04                          |
| 64    | 2.30                        | 0.210    | 0.40          | 0.92      | 126                            | 858               | 50   | 9 631               | 1 087.7                    | 1979         | 83 12 - SUSP 79 10             |
| 64    | 1.00                        | 0.180    | 0.40          | 0.90      | 18                             | 863               | 37   | 6 234               | 1 072.5                    | 1984         | 84 08                          |
| 64    | 1.17                        | 0.260    | 0.25          | 0.89      | 62                             | 889               | 37   | 8 517               | 1 028.1                    | 1976         | 85 04 - SUSP 84 11             |
| 64    | 2.70                        | 0.200    | 0.35          | 0.86      | 37                             | 870               | 49   | 9 480               | 1 076.2                    | 1975         | 84 12 - GPP                    |
| 64    | 17.37                       | 0.160    | 0.30          | 0.88      | 46                             | 870               | 47   | 8 140               | 1 319.8                    | 1963         | 85 12                          |
| 2 207 |                             |          |               |           | 63                             | 876               | 62   | 12 000              | 1 585.9                    | 1949         | 82 12                          |
| 80    | 6.00                        | 0.050    | 0.22          | 0.81      |                                |                   |      |                     |                            |              |                                |
| 2 127 | 13.72                       | 0.050    | 0.22          | 0.81      |                                |                   |      |                     |                            |              | - GPP                          |
| 64    | 2.60                        | 0.080    | 0.12          | 0.81      | 62                             | 887               | 38   | 11 800              | 1 583.1                    | 1978         | 79 02 - SUSP 84 05             |
| 64    | 12.00                       | 0.060    | 0.20          | 0.84      | 62                             | 887               | 55   | 11 767              | 1 592.0                    | 1979         | 82 12 - SUSP 81 08             |
| 1 861 | 7.96                        | 0.061    | 0.17          | 0.82      | 67                             | 887               | 63   | 12 820              | 1 626.7                    | 1949         | 75 08 - GPP                    |
| 133   | 5.68                        | 0.075    | 0.15          | 0.83      | 62                             | 876               | 65   | 12 690              | 1 648.1                    | 1952         | 84 12                          |
| 64    | 5.30                        | 0.060    | 0.37          | 0.83      | 62                             | 876               | 58   | 12 086              | 1 642.7                    | 1984         | 85 02                          |
| 64    | 3.15                        | 0.124    | 0.18          | 0.84      | 62                             | 873               | 65   | 11 935              | 1 645.5                    | 1984         | 85 06                          |
| 285   | 1.85                        | 0.200    | 0.31          | 0.85      | 44                             | 887               | 33   | 9 290               | 1 293.0                    | 1976         | 82 10 - GPP                    |
| 280   |                             |          |               |           | 63                             | 876               | 62   | 11 960              | 1 605.4                    | 1951         | 85 02 - GPP                    |
| 120   | 6.68                        | 0.110    | 0.15          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 160   | 8.36                        | 0.110    | 0.15          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 32    | 5.09                        | 0.145    | 0.31          | 0.81      | 65                             | 882               | 63   | 9 765               | 1 601.2                    | 1984         | 85 08                          |
| 175   | 3.93                        | 0.084    | 0.12          | 0.80      | 75                             | 904               | 60   | 12 760              | 1 653.8                    | 1952         | 84 12 - GPP                    |

TABLE 2-4

| FIELD<br>POOL                           | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>STRATHMORE 023-25W4</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                       | 227.0                          | 0.05     |          | 11.4                           |                                | 11.4                           | 9.9                            | 1.5                                  |
| LOWER MANNVILLE A                       | 161.0                          | 0.10     |          | 16.1                           |                                | 16.1                           | 4.7                            | 11.4                                 |
| <b>STURGEON LAKE<br/>071-23W5</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| D-3                                     | 7 060.0                        | 0.50     |          | 3 530.0                        |                                | 3 530.0                        | 3 217.4                        | 312.6                                |
| <b>STURGEON LAKE SOUTH<br/>069-22W5</b> |                                |          |          |                                |                                |                                |                                |                                      |
| TRIASSIC A                              | 4 770.0                        | 0.11     |          | 524.0                          |                                | 524.0                          | 389.2                          | 134.8                                |
| TRIASSIC B                              | 1 200.0                        | 0.20     |          | 240.0                          |                                | 240.0                          | 199.7                          | 40.3                                 |
| TRIASSIC C                              | 26.6                           | 0.10     |          | 2.7                            |                                | 2.7                            | 0.2                            | 2.5                                  |
| D-2 A                                   | 884.0                          | 0.20     |          | 177.0                          |                                | 177.0                          | 122.9                          | 54.1                                 |
| D-3                                     | 45 300.0                       | 0.55     |          | 24 900.0                       |                                | 24 900.0                       | 19 088.2                       | 5 811.8                              |
| D-3 B                                   | 1 210.0                        | 0.10     |          | 121.0                          |                                | 121.0                          | 110.7                          | 10.3                                 |
| D-3 C                                   | 818.0                          | 0.55     |          | 450.0                          |                                | 450.0                          | 101.4                          | 348.6                                |
| D-3 D                                   | 268.0                          | 0.35     |          | 93.8                           |                                | 93.8                           | 1.8                            | 92.0                                 |
| <b>SULLIVAN LAKE<br/>034-14W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ A                          | 156.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| BANFF A                                 | 195.0                          | 0.10     |          | 19.5                           |                                | 19.5                           | 0.8                            | 18.7                                 |
| <b>SUNDRE 034-05W5</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                                | 382.0                          | 0.10     |          | 38.2                           |                                | 38.2                           | 13.2                           | 25.0                                 |
| VIKING B                                | 214.0                          | 0.10     |          | 21.4                           |                                | 21.4                           | 2.6                            | 18.8                                 |
| VIKING C                                | 97.9                           | 0.10     |          | 9.8                            |                                | 9.8                            |                                | 9.8                                  |
| VIKING D                                | 122.0                          | 0.10     |          | 12.2                           |                                | 12.2                           | 1.2                            | 11.0                                 |
| RUNDLE A TOTAL                          | 13 200.0                       |          |          | 3 250.0                        | 1 910.0                        | 5 160.0                        | 4 739.4                        | 420.6                                |
| PRIMARY AREA                            | 488.0                          | 0.15     |          | 73.2                           |                                | 73.2                           |                                |                                      |
| WATER FLOOD AREA                        | 12 700.0                       | 0.25     | 0.15     | 3 180.0                        | 1 910.0                        | 5 090.0                        |                                |                                      |
| RUNDLE B TOTAL                          | 2 700.0                        |          |          | 392.0                          | 262.0                          | 654.0                          | 571.3                          | 82.7                                 |
| PRIMARY AREA                            | 318.0                          | <0.04    |          | 11.0                           |                                | 11.0                           |                                |                                      |
| WATER FLOOD AREA                        | 2 380.0                        | 0.16     | 0.11     | 381.0                          | 262.0                          | 643.0                          |                                |                                      |
| <b>SUNSET 069-20W5</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| TRIASSIC A                              | 4 130.0                        | 0.25     | 0.02     | 1 030.0                        | 83.0                           | 1 120.0                        | 456.8                          | 663.2                                |
| WATER FLOOD                             |                                |          |          |                                |                                |                                |                                |                                      |
| TRIASSIC B                              | 288.0                          | 0.15     |          | 43.2                           |                                | 43.2                           | 12.8                           | 30.4                                 |
| BEAVERHILL LAKE A                       | 245.0                          | <0.01    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| <b>SWALWELL 029-24W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| PEKISK0 A                               | 1 620.0                        | 0.05     |          | 81.0                           |                                | 81.0                           | 54.3                           | 26.7                                 |
| PEKISK0 B                               | 167.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| PEKISK0 C                               | 249.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| PEKISK0 D                               | 408.0                          | 0.10     |          | 40.8                           |                                | 40.8                           | 23.9                           | 16.9                                 |
| PEKISK0 E                               | 37.8                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| PEKISK0 F                               | 2 420.0                        | 0.10     |          | 242.0                          |                                | 242.0                          | 51.0                           | 191.0                                |
| PEKISK0 H                               | 603.0                          | 0.02     |          | 12.1                           |                                | 12.1                           | 6.4                            | 5.7                                  |
| PEKISK0 I                               | 373.0                          | 0.10     |          | 37.3                           |                                | 37.3                           | 0.5                            | 36.8                                 |
| PEKISK0 L                               | 98.0                           | 0.10     |          | 9.8                            |                                | 9.8                            | 8.1                            | 1.7                                  |
| D-2 A                                   | 1 730.0                        | 0.11     |          | 190.0                          |                                | 190.0                          | 160.2                          | 29.8                                 |
| D-2 B                                   | 115.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| <b>SWAN HILLS 068-10W5</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| BEAVERHILL LAKE C                       | 98 700.0                       |          |          | 12 400.0                       | 20 100.0                       | 32 500.0                       | 17 870.4                       | 14 629.6                             |
| TOTAL                                   |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                            | 4 320.0                        | 0.08     |          | 346.0                          |                                | 346.0                          |                                |                                      |
| WATER FLOOD AREA                        | 94 400.0                       | 0.13     | 0.22     | 12 100.0                       | 20 100.0                       | 32 200.0                       |                                |                                      |
| BEAVERHILL LAKE D                       | 216.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BEAVERHILL LAKE A&B                     | 290 000.0                      |          |          | 45 200.0                       | 57 200.0                       | 103 000.0                      | 83 224.9                       | 19 775.1                             |
| TOTAL                                   |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                            | 4 880.0                        | 0.12     |          | 586.0                          |                                | 586.0                          |                                |                                      |
| WATER FLOOD AREA                        | 285 000.0                      | <0.16    | 0.20     | 44 600.0                       | 57 200.0                       | 102 000.0                      |                                |                                      |
| <b>SWAN HILLS SOUTH<br/>065-10W5</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| BEAVERHILL LAKE A&B                     | 144 000.0                      |          |          | 25 400.0                       | 56 200.0                       | 81 600.0                       | 51 548.8                       | 30 051.2                             |
| TOTAL                                   |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                            | 2 310.0                        | 0.14     |          | 324.0                          |                                | 324.0                          |                                |                                      |
| SOLVENT FLOOD AREA                      | 133 000.0                      | 0.18     | 0.41     | 23 900.0                       | 54 300.0                       | 78 200.0                       |                                |                                      |
| WATER FLOOD AREA                        | 8 750.0                        | 0.14     | 0.22     | 1 220.0                        | 1 850.0                        | 3 070.0                        |                                |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64     | 3.70                        | 0.150    | 0.20          | 0.80      |                                | 800               | 52   | 13 680              | 1 703.2                    | 1963         | 73 11 - GPP                    |
| 64     | 3.40                        | 0.120    | 0.25          | 0.82      | 76                             | 865               | 49   | 11 640              | 1 782.6                    | 1976         | 79 09 - GPP                    |
| 1 322  | 18.59                       | 0.052    | 0.15          | 0.65      | 188                            | 839               | 88   | 27 240              | 2 598.4                    | 1952         | 73 12                          |
| 1 578  | 4.08                        | 0.150    | 0.35          | 0.76      | 102                            | 844               | 52   | 13 890              | 1 499.6                    | 1955         | 70 02 - GPP                    |
| 565    | 2.83                        | 0.139    | 0.29          | 0.76      | 101                            | 839               | 54   | 14 860              | 1 554.5                    | 1957         | 83 12 - GPP                    |
| 32     | 2.00                        | 0.090    | 0.40          | 0.77      | 104                            | 838               | 54   | 13 115              | 1 553.8                    | 1983         | 85 04 - SUSP 85 01             |
| 364    | 6.43                        | 0.073    | 0.24          | 0.68      | 145                            | 834               | 82   | 24 340              | 2 337.8                    | 1957         | 84 12 - GPP                    |
| 6 950  | 24.81                       | 0.047    | 0.14          | 0.65      | 183                            | 834               | 88   | 27 340              | 2 590.8                    | 1953         | 72 02                          |
| 446    | 8.87                        | 0.050    | 0.15          | 0.72      | 133                            | 839               | 91   | 25 990              | 2 660.0                    | 1964         | 73 12 - GPP                    |
| 98     | 13.22                       | 0.102    | 0.09          | 0.68      | 160                            | 841               | 88   | 22 899              | 2 670.0                    | 1983         | 84 11                          |
| 32     | 15.20                       | 0.090    | 0.10          | 0.68      | 160                            | 850               | 89   | 23 063              | 2 658.4                    | 1984         | 84 12 - SUSP 85 07             |
| 64     | 1.80                        | 0.220    | 0.30          | 0.88      | 51                             | 877               | 30   | 8 477               | 1 095.3                    | 1980         | 80 10 - SUSP 81 11             |
| 64     | 3.20                        | 0.130    | 0.16          | 0.87      | 51                             | 878               | 43   | 9 085               | 1 173.4                    | 1982         | 83 09                          |
| 256    | 4.36                        | 0.070    | 0.27          | 0.67      | 181                            | 816               | 87   | 18 264              | 2 481.4                    | 1980         | 84 01                          |
| 64     | 5.80                        | 0.100    | 0.20          | 0.72      | 128                            | 849               | 59   | 17 500              | 2 422.4                    | 1981         | 82 03                          |
| 64     | 3.40                        | 0.080    | 0.25          | 0.75      | 181                            | 850               | 87   | 18 264              | 2 565.0                    | 1984         | 85 05                          |
| 64     | 7.50                        | 0.065    | 0.35          | 0.60      | 195                            | 803               | 89   | 19 247              | 2 574.7                    | 1982         | 82 11                          |
| 2 489  |                             |          |               |           | 130                            | 865               | 91   | 25 370              | 2 759.0                    | 1955         | 83 12                          |
| 192    | 8.75                        | 0.051    | 0.22          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 2 297  | 8.29                        | 0.105    | 0.13          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 824    |                             |          |               |           | 127                            | 865               | 90   | 25 060              | 2 696.9                    | 1960         | 82 12                          |
| 154    | 3.69                        | 0.090    | 0.15          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 570    | 6.36                        | 0.090    | 0.15          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 1 391  | 5.46                        | 0.130    | 0.49          | 0.82      | 97                             | 865               | 60   | 12 860              | 1 439.3                    | 1960         | 80 02 - GPP                    |
| 96     | 5.33                        | 0.140    | 0.51          | 0.82      | 76                             | 865               | 43   | 14 420              | 1 390.9                    | 1975         | 85 05                          |
| 128    | 6.74                        | 0.056    | 0.35          | 0.78      | 70                             | 877               | 86   | 24 600              | 2 693.6                    | 1982         | 85 12 - SUSP 83 09             |
| 576    | 10.40                       | 0.044    | 0.25          | 0.82      | 74                             | 849               | 53   | 11 720              | 1 626.1                    | 1965         | 81 12 - GPP                    |
| 65     | 14.02                       | 0.050    | 0.55          | 0.82      | 74                             | 839               | 54   | 12 100              | 1 700.5                    | 1976         | 81 12 - SUSP 77 11             |
| 65     | 16.46                       | 0.050    | 0.43          | 0.82      | 74                             | 839               | 49   | 10 480              | 1 705.4                    | 1976         | 82 12 - SUSP 76 12             |
| 128    | 10.80                       | 0.060    | 0.40          | 0.82      | 71                             | 839               | 54   | 10 958              | 1 665.0                    | 1976         | 83 08                          |
| 65     | 1.83                        | 0.060    | 0.35          | 0.82      | 78                             | 855               | 43   | 11 210              | 1 652.6                    | 1977         | 79 03 - SUSP 78 05             |
| 745    | 8.21                        | 0.070    | 0.31          | 0.82      | 64                             | 871               | 52   | 11 010              | 1 656.8                    | 1979         | 84 05                          |
| 128    | 18.84                       | 0.050    | 0.39          | 0.82      | 67                             | 869               | 51   | 10 991              | 1 626.5                    | 1979         | 83 12 - GPP                    |
| 64     | 8.80                        | 0.133    | 0.40          | 0.83      | 85                             | 874               | 61   | 11 167              | 1 621.1                    | 1980         | 79 03                          |
| 64     | 4.94                        | 0.060    | 0.37          | 0.82      | 71                             | 849               | 60   | 11 170              | 1 710.0                    | 1976         | 78 12 - GPP                    |
| 928    | 4.24                        | 0.068    | 0.16          | 0.77      | 96                             | 839               | 69   | 16 580              | 1 947.4                    | 1969         | 80 12 - GPP                    |
| 65     | 3.96                        | 0.070    | 0.17          | 0.77      | 122                            | 839               | 68   | 16 410              | 1 973.3                    | 1973         | 75 12 - SUSP 75 01             |
| 25 749 |                             |          |               |           | 77                             | 815               | 91   | 21 950              | 2 281.4                    | 1959         | 79 12                          |
| 2 382  | 4.17                        | 0.052    | 0.10          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 23 367 | 9.28                        | 0.062    | 0.10          | 0.78      |                                |                   |      |                     |                            |              |                                |
| 128    | 9.00                        | 0.030    | 0.20          | 0.78      | 86                             | 818               | 53   | 9 300               | 2 487.8                    | 1982         | 84 12 - SUSP 84 01             |
| 39 773 |                             |          |               |           | 100                            | 820               | 104  | 22 680              | 2 527.4                    | 1957         | 84 12                          |
| 2 273  | 5.70                        | 0.067    | 0.23          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 37 500 | 16.25                       | 0.079    | 0.19          | 0.73      |                                |                   |      |                     |                            |              |                                |
| 14 892 |                             |          |               |           | 113                            | 820               | 107  | 23 510              | 2 543.6                    | 1959         | 84 04                          |
| 713    | 9.16                        | 0.063    | 0.22          | 0.72      |                                |                   |      |                     |                            |              |                                |
| 11 279 | 25.63                       | 0.080    | 0.19          | 0.71      |                                |                   |      |                     |                            |              |                                |
| 2 900  | 6.40                        | 0.081    | 0.18          | 0.71      |                                |                   |      |                     |                            |              |                                |

TABLE 2-4

| FIELD<br>POOL                  | 1                              | 2        | 3        | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>SYLVAN LAKE 037-03W5</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                      | 550.0                          | 0.12     |          | 66.0                           |                                | 66.0                           | 56.3                           | 9.7                                  |
| CARDIUM B                      | 110.0                          | 0.10     |          | 11.0                           |                                | 11.0                           | 6.6                            | 4.4                                  |
| CARDIUM C                      | 159.0                          | 0.10     |          | 15.9                           |                                | 15.9                           | 1.1                            | 14.8                                 |
| CARDIUM D                      | 26.6                           | 0.10     |          | 2.7                            |                                | 2.7                            | 0.2                            | 2.5                                  |
| SECOND WHITE<br>SPECKS A       | 484.0                          | 0.02     |          | 9.7                            |                                | 9.7                            | 2.8                            | 6.9                                  |
| VIKING E                       | 361.0                          | 0.15     |          | 54.2                           |                                | 54.2                           | 26.6                           | 27.6                                 |
| VIKING G                       | 64.5                           | 0.15     |          | 9.7                            |                                | 9.7                            | 5.1                            | 4.6                                  |
| VIKING H                       | 73.9                           | 0.10     |          | 7.4                            |                                | 7.4                            | 3.1                            | 4.3                                  |
| VIKING J                       | 77.8                           | 0.15     |          | 11.7                           |                                | 11.7                           | 0.9                            | 10.8                                 |
| VIKING K                       | 120.0                          | 0.15     |          | 18.0                           |                                | 18.0                           | 11.8                           | 6.2                                  |
| VIKING L                       | 80.2                           | 0.15     |          | 12.0                           |                                | 12.0                           | 1.3                            | 10.7                                 |
| VIKING M                       | 378.0                          | 0.10     |          | 37.8                           |                                | 37.8                           | 3.3                            | 34.5                                 |
| VIKING N                       | 13.8                           | 0.10     |          | 1.4                            |                                | 1.4                            |                                | 1.4                                  |
| VIKING O                       | 65.9                           | 0.10     |          | 6.6                            |                                | 6.6                            | 1.8                            | 4.8                                  |
| VIKING P                       | 72.1                           | 0.15     |          | 10.8                           |                                | 10.8                           | 2.4                            | 8.4                                  |
| VIKING Q                       | 25.1                           | 0.20     |          | 5.0                            |                                | 5.0                            | 2.9                            | 2.1                                  |
| VIKING A & S                   | 2 190.0                        | 0.12     |          | 264.0                          |                                | 264.0                          | 200.8                          | 63.2                                 |
| GLAUCONITIC C                  | 337.0                          | <0.06    |          | 18.4                           |                                | 18.4                           |                                |                                      |
| GLAUCONITIC D                  | 172.0                          | <0.01    |          | 0.4                            |                                | 0.4                            |                                |                                      |
| GLAUCONITIC F                  | 333.0                          | 0.10     |          | 33.3                           |                                | 33.3                           | 0.9                            | 32.4                                 |
| GLAUCONITIC G                  | 341.0                          | 0.10     |          | 34.1                           |                                | 34.1                           | 3.5                            | 30.6                                 |
| LOWER MANNVILLE J              | 211.0                          | <0.01    |          | 0.4                            |                                | 0.4                            |                                |                                      |
| LOWER MANNVILLE N              | 84.3                           | 0.10     |          | 8.4                            |                                | 8.4                            | 0.4                            | 8.0                                  |
| LOWER MANNVILLE R              | 529.0                          | 0.10     |          | 52.9                           |                                | 52.9                           | 0.3                            | 52.6                                 |
| LOWER MANNVILLE S              | 44.0                           | 0.10     |          | 4.4                            |                                | 4.4                            | 1.1                            | 3.3                                  |
| OSTRACOD A                     | 254.0                          | <0.01    |          | 1.5                            |                                | 1.5                            | 1.5                            |                                      |
| OSTRACOD F                     | 144.0                          | <0.01    |          | 0.6                            |                                | 0.6                            |                                |                                      |
| BASAL QUARTZ A &<br>OSTRACOD B | 435.0                          | 0.03     |          | 13.1                           |                                | 13.1                           | 10.1                           | 3.0                                  |
| DETRITAL B                     | 973.0                          | <0.01    |          | 1.4                            |                                | 1.4                            | 1.4                            |                                      |
| DETRITAL D                     | 359.0                          | <0.01    |          | 0.8                            |                                | 0.8                            |                                | 0.8                                  |
| DETRITAL E                     | 443.0                          | 0.07     |          | 31.0                           |                                | 31.0                           | 21.5                           | 9.5                                  |
| ELKTON E                       |                                |          |          |                                |                                |                                |                                |                                      |
| JURASSIC A                     | 4 180.0                        | 0.10     |          | 418.0                          |                                | 418.0                          | 319.5                          | 98.5                                 |
| JURASSIC B                     | 222.0                          | <0.01    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| JURASSIC C                     | 1 590.0                        | 0.05     |          | 79.5                           |                                | 79.5                           | 41.2                           | 38.3                                 |
| JURASSIC D                     | 429.0                          | 0.05     |          | 21.4                           |                                | 21.4                           | 15.0                           | 5.4                                  |
| JURASSIC E                     | 726.0                          | 0.03     |          | 21.8                           |                                | 21.8                           | 15.9                           | 5.9                                  |
| JURASSIC I                     | 373.0                          | 0.05     |          | 18.7                           |                                | 18.7                           | 0.6                            | 18.1                                 |
| JURASSIC J                     | 752.0                          | 0.03     |          | 22.6                           |                                | 22.6                           | 6.1                            | 16.5                                 |
| JURASSIC M                     | 184.0                          | <0.01    |          | 16.5                           |                                | 16.5                           | 16.5                           |                                      |
| JURASSIC N                     | 909.0                          | 0.10     |          | 90.9                           |                                | 90.9                           | 4.5                            | 86.4                                 |
| JURASSIC P                     | 261.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| JURASSIC R                     | 157.0                          | 0.10     |          | 15.7                           |                                | 15.7                           | 2.4                            | 13.3                                 |
| JURASSIC T                     | 108.0                          | 0.15     |          | 16.2                           |                                | 16.2                           |                                | 16.2                                 |
| JURASSIC U                     | 374.0                          | 0.10     |          | 37.4                           |                                | 37.4                           | 0.3                            | 37.1                                 |
| ELKTON B                       | 869.0                          | 0.15     |          | 130.0                          |                                | 130.0                          | 88.5                           | 41.5                                 |
| ELKTON C                       | 4 770.0                        | 0.15     |          | 715.0                          |                                | 715.0                          | 471.4                          | 243.6                                |
| ELKTON F                       | 454.0                          | 0.08     |          | 36.3                           |                                | 36.3                           | 30.3                           | 6.0                                  |
| ELKTON I                       | 263.0                          | <0.01    |          | 1.4                            |                                | 1.4                            |                                |                                      |
| ELKTON J                       | 460.0                          | 0.15     |          | 69.0                           |                                | 69.0                           | 6.4                            | 62.6                                 |
| ELKTON K                       | 110.0                          | 0.15     |          | 16.5                           |                                | 16.5                           |                                | 16.5                                 |
| SHUNDA C                       | 126.0                          | 0.02     |          | 2.5                            |                                | 2.5                            | 1.5                            | 1.0                                  |
| PEKISKO B                      | 7 950.0                        | 0.29     |          | 2 300.0                        |                                | 2 300.0                        | 1 498.9                        | 801.1                                |
| PEKISKO C                      | 2 620.0                        | 0.30     |          | 787.0                          |                                | 787.0                          | 468.9                          | 318.1                                |
| PEKISKO D                      | 1 910.0                        | 0.20     |          | 381.0                          |                                | 381.0                          | 261.1                          | 119.9                                |
| PEKISKO E                      | 159.0                          | <0.02    |          | 2.5                            |                                | 2.5                            | 2.5                            |                                      |
| PEKISKO G                      | 830.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| PEKISKO M                      | 426.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| PEKISKO O                      | 404.0                          | 0.10     |          | 40.4                           |                                | 40.4                           | 1.4                            | 39.0                                 |
| PEKISKO R                      | 269.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| D-3 A                          | 1 620.0                        | 0.01     |          | 16.2                           |                                | 16.2                           | 9.3                            | 6.9                                  |
| <b>TANGENT OBO-24W5</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| D-1 A                          | 970.0                          | 0.20     |          | 194.0                          |                                | 194.0                          | 63.6                           | 130.4                                |
| D-1 B                          | 84.9                           | 0.20     |          | 17.0                           |                                | 17.0                           | 8.5                            | 8.5                                  |
| D-1 C                          | 246.0                          | 0.20     |          | 49.2                           |                                | 49.2                           | 10.2                           | 39.0                                 |
| D-1 D                          | 85.0                           | 0.20     |          | 17.0                           |                                | 17.0                           | 5.3                            | 11.7                                 |
| D-1 E                          | 1 350.0                        | 0.20     |          | 270.0                          |                                | 270.0                          | 64.4                           | 205.6                                |
| D-1 F                          | 590.0                          | 0.20     |          | 118.0                          |                                | 118.0                          | 24.1                           | 93.9                                 |
| D-1 G                          | 376.0                          | 0.20     |          | 75.2                           |                                | 75.2                           | 2.2                            | 73.0                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 411   | 1.54                        | 0.138    | 0.25          | 0.84      | 71                             | 860               | 54   | 27 130              | 1 763.9                    | 1964         | 79 12 - GPP                    |
| 100   | 1.34                        | 0.140    | 0.30          | 0.84      | 71                             | 844               | 54   | 27 230              | 1 794.2                    | 1976         | 82 12 - GPP                    |
| 64    | 6.80                        | 0.058    | 0.25          | 0.84      | 68                             | 845               | 54   | 10 050              | 1 686.3                    | 1982         | 82 07                          |
| 64    | 1.16                        | 0.061    | 0.30          | 0.84      | 64                             | 807               | 54   | 9 954               | 1 675.6                    | 1982         | 84 06                          |
| 64    | 12.00                       | 0.180    | 0.50          | 0.70      | 145                            | 816               | 64   | 18 657              | 2 086.0                    | 1981         | 83 12 - GPP                    |
| 256   | 2.77                        | 0.110    | 0.40          | 0.77      | 102                            | 839               | 66   | 15 130              | 1 999.5                    | 1972         | 85 10                          |
| 64    | 2.80                        | 0.080    | 0.40          | 0.75      | 123                            | 820               | 36   | 18 036              | 1 996.9                    | 1964         | 81 07 - GPP                    |
| 64    | 2.20                        | 0.100    | 0.30          | 0.75      | 105                            | 815               | 58   | 18 843              | 1 981.4                    | 1981         | 82 05                          |
| 64    | 2.70                        | 0.100    | 0.40          | 0.75      | 125                            | 825               | 60   | 14 500              | 1 970.2                    | 1981         | 83 01 - GPP                    |
| 124   | 2.15                        | 0.090    | 0.35          | 0.77      | 99                             | 839               | 66   | 13 925              | 2 183.5                    | 1977         | 83 12                          |
| 128   | 1.84                        | 0.090    | 0.34          | 0.77      | 101                            | 839               | 66   | 11 706              | 2 102.8                    | 1983         | 85 08                          |
| 64    | 6.50                        | 0.200    | 0.45          | 0.75      | 105                            | 800               | 63   | 14 105              | 1 827.2                    | 1982         | 85 02                          |
| 64    | 0.70                        | 0.080    | 0.50          | 0.77      | 101                            | 839               | 66   | 14 826              | 1 881.7                    | 1982         | 83 10                          |
| 192   | 0.98                        | 0.070    | 0.35          | 0.77      | 101                            | 839               | 66   | 11 186              | 1 876.2                    | 1983         | 85 04                          |
| 64    | 1.50                        | 0.150    | 0.35          | 0.77      | 101                            | 839               | 66   | 14 883              | 2 019.2                    | 1983         | 84 09                          |
| 64    | 1.74                        | 0.045    | 0.35          | 0.77      | 72                             | 845               | 66   | 11 289              | 2 171.5                    | 1978         | 82 07                          |
| 3 200 | 1.26                        | 0.110    | 0.35          | 0.76      | 110                            | 815               | 51   | 15 650              | 1 900.7                    | 1965         | 85 11 - GPP                    |
| 64    | 8.62                        | 0.130    | 0.39          | 0.77      | 89                             | 887               | 64   | 16 790              | 2 199.1                    | 1964         | 73 12 - SUSP 80 04             |
| 65    | 4.57                        | 0.100    | 0.25          | 0.77      | 98                             | 910               | 62   | 16 420              | 2 201.0                    | 1975         | 76 07 - SUSP 78 07             |
| 64    | 9.40                        | 0.120    | 0.35          | 0.71      | 126                            | 807               | 79   | 14 350              | 2 158.9                    | 1983         | 84 02                          |
| 64    | 6.70                        | 0.140    | 0.20          | 0.71      | 90                             | 808               | 70   | 12 180              | 2 162.6                    | 1974         | 84 10                          |
| 65    | 2.74                        | 0.200    | 0.30          | 0.85      | 64                             | 915               | 61   | 14 090              | 2 158.0                    | 1976         | 83 12 - ABAND 80 11            |
| 64    | 2.50                        | 0.100    | 0.15          | 0.62      | 195                            | 795               | 64   | 18 020              | 2 353.3                    | 1978         | 79 03                          |
| 64    | 12.30                       | 0.120    | 0.30          | 0.80      | 80                             | 845               | 66   | 10 200              | 2 140.4                    | 1981         | 82 03                          |
| 64    | 1.20                        | 0.090    | 0.25          | 0.85      | 54                             | 888               | 71   | 17 609              | 2 336.1                    | 1978         | 82 05 - SUSP 84 04             |
| 64    | 5.18                        | 0.130    | 0.24          | 0.77      | 80                             | 892               | 71   | 17 510              | 2 284.8                    | 1963         | 64 04 - SUSP 69 07             |
| 64    | 4.00                        | 0.100    | 0.25          | 0.75      | 105                            | 879               | 74   | 17 100              | 2 316.8                    | 1979         | 82 12 - SUSP 80 09             |
| 64    | 7.08                        | 0.150    | 0.20          | 0.80      | 108                            | 892               | 73   | 20 532              | 2 387.0                    | 1964         | 79 02 - GPP                    |
| 65    | 19.81                       | 0.128    | 0.25          | 0.79      | 80                             | 887               | 73   | 16 510              | 2 197.6                    | 1963         | 73 02 - SUSP 71 09             |
| 65    | 3.66                        | 0.240    | 0.20          | 0.79      | 80                             | 844               | 73   | 16 650              | 2 176.3                    | 1971         | 76 10                          |
| 64    | 10.40                       | 0.104    | 0.18          | 0.78      | 102                            | 887               | 76   | 19 200              | 2 431.7                    | 1963         | 81 12 - GPP                    |
| 1 187 | 4.30                        | 0.140    | 0.25          | 0.78      | 96                             | 887               | 68   | 17 310              | 2 264.1                    | 1962         | 63 04                          |
| 66    | 5.79                        | 0.100    | 0.25          | 0.78      | 93                             | 887               | 71   | 15 890              | 2 236.9                    | 1962         | 64 04 - ABAND 66 10            |
| 192   | 10.50                       | 0.130    | 0.22          | 0.78      | 96                             | 887               | 71   | 17 340              | 2 242.5                    | 1960         | 83 05 - GPP                    |
| 138   | 5.12                        | 0.104    | 0.25          | 0.78      | 94                             | 887               | 71   | 16 000              | 2 225.3                    | 1963         | 85 12 - GPP                    |
| 65    | 12.80                       | 0.150    | 0.25          | 0.78      | 95                             | 898               | 67   | 17 070              | 2 211.9                    | 1964         | 84 12 - GPP                    |
| 65    | 10.97                       | 0.090    | 0.25          | 0.78      | 95                             | 887               | 71   | 17 070              | 2 222.6                    | 1964         | 85 11                          |
| 128   | 7.94                        | 0.130    | 0.27          | 0.78      | 96                             | 887               | 71   | 17 270              | 2 249.1                    | 1965         | 85 11 - GPP                    |
| 64    | 5.53                        | 0.090    | 0.25          | 0.77      | 103                            | 887               | 71   | 16 800              | 2 202.8                    | 1970         | 85 12 - SUSP 84 12             |
| 192   | 7.33                        | 0.120    | 0.31          | 0.78      | 83                             | 890               | 68   | 17 921              | 2 269.1                    | 1982         | 84 02                          |
| 64    | 6.80                        | 0.110    | 0.30          | 0.78      | 88                             | 933               | 60   | 17 650              | 2 311.9                    | 1983         | 84 03 - ABAND 84 09            |
| 64    | 5.10                        | 0.103    | 0.40          | 0.78      | 95                             | 919               | 65   | 17 500              | 2 263.5                    | 1983         | 84 06                          |
| 64    | 2.00                        | 0.150    | 0.30          | 0.80      | 83                             | 889               | 68   | 16 017              | 2 303.0                    | 1984         | 85 06                          |
| 64    | 7.50                        | 0.135    | 0.26          | 0.78      | 98                             | 867               | 55   | 17 235              | 2 239.0                    | 1981         | 85 09                          |
| 217   | 4.69                        | 0.132    | 0.17          | 0.78      | 92                             | 881               | 71   | 17 270              | 2 255.8                    | 1963         | 63 10                          |
| 626   | 10.67                       | 0.109    | 0.16          | 0.78      | 93                             | 887               | 68   | 17 310              | 2 265.9                    | 1963         | 63 10 - GPP                    |
| 64    | 11.00                       | 0.100    | 0.18          | 0.78      | 89                             | 887               | 76   | 18 890              | 2 433.8                    | 1963         | 79 12 - GPP                    |
| 64    | 7.30                        | 0.110    | 0.39          | 0.84      | 74                             | 913               | 71   | 17 364              | 2 307.3                    | 1982         | 83 04 - ABAND 83 11            |
| 64    | 13.00                       | 0.100    | 0.35          | 0.85      | 95                             | 886               | 64   | 17 923              | 2 393.1                    | 1984         | 84 11                          |
| 64    | 4.00                        | 0.070    | 0.25          | 0.82      | 72                             | 911               | 73   | 18 202              | 2 217.1                    | 1984         | 85 10                          |
| 65    | 1.83                        | 0.170    | 0.20          | 0.78      | 96                             | 892               | 72   | 16 800              | 2 192.7                    | 1972         | 82 12 - GPP                    |
| 232   | 9.24                        | 0.108    | 0.16          | 0.77      | 92                             | 887               | 69   | 17 100              | 2 229.6                    | 1962         | 70 02                          |
| 485   | 8.90                        | 0.096    | 0.19          | 0.78      | 93                             | 887               | 72   | 17 440              | 2 236.3                    | 1963         | 63 10 - GPP                    |
| 487   | 6.58                        | 0.102    | 0.20          | 0.73      | 121                            | 849               | 76   | 17 510              | 2 257.7                    | 1960         | 63 04 - GPP                    |
| 27    | 8.23                        | 0.105    | 0.20          | 0.86      | 85                             | 921               | 73   | 15 860              | 2 154.3                    | 1963         | 73 02 - SUSP 72 11             |
| 74    | 28.04                       | 0.069    | 0.25          | 0.77      | 62                             | 992               | 89   | 17 510              | 2 153.1                    | 1963         | 64 12 - SUSP 64 05             |
| 65    | 7.01                        | 0.140    | 0.13          | 0.77      | 94                             | 887               | 67   | 17 480              | 2 292.7                    | 1964         | 65 12 - ABAND 68 03            |
| 128   | 6.07                        | 0.100    | 0.35          | 0.80      | 121                            | 849               | 76   | 16 870              | 2 261.6                    | 1983         | 85 10                          |
| 64    | 8.00                        | 0.105    | 0.35          | 0.77      | 145                            | 825               | 63   | 15 058              | 2 263.9                    | 1984         | 85 06 - SUSP 85 05             |
| 987   | 6.16                        | 0.056    | 0.15          | 0.56      | 262                            | 792               | 79   | 24 340              | 2 881.9                    | 1962         | 83 12 - SUSP 84 05             |
| 64    | 50.50                       | 0.050    | 0.24          | 0.79      | 78                             | 839               | 62   | 18 804              | 1 783.5                    | 1981         | 83 04                          |
| 64    | 6.00                        | 0.040    | 0.30          | 0.79      | 80                             | 839               | 55   | 18 591              | 1 763.5                    | 1982         | 82 10                          |
| 64    | 21.30                       | 0.030    | 0.24          | 0.79      | 75                             | 839               | 68   | 16 360              | 1 783.5                    | 1982         | 83 04                          |
| 64    | 22.10                       | 0.010    | 0.24          | 0.79      | 78                             | 843               | 62   | 18 697              | 1 777.0                    | 1983         | 83 08                          |
| 64    | 67.80                       | 0.050    | 0.21          | 0.79      | 82                             | 839               | 56   | 18 579              | 1 781.9                    | 1983         | 83 11                          |
| 64    | 31.80                       | 0.054    | 0.32          | 0.79      | 80                             | 855               | 58   | 18 949              | 1 830.9                    | 1983         | 83 11                          |
| 64    | 42.50                       | 0.025    | 0.30          | 0.79      | 84                             | 843               | 58   | 18 520              | 1 773.0                    | 1983         | 84 01 - SUSP 85 02             |

TABLE 2-4

| FIELD<br>POOL                   | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                 | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                 |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                 | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| TANGENT 080-24W5<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| D-1 H                           | 635.0                          | 0.20     |          | 127.0                          |                                | 127.0                          | 11.9                           | 115.1                                |
| D-1 I                           | 430.0                          | 0.20     |          | 86.0                           |                                | 86.0                           | 17.6                           | 68.4                                 |
| D-1 J                           | 268.0                          | <0.02    |          | 4.3                            |                                | 4.3                            | 4.3                            |                                      |
| D-1 K                           | 736.0                          | 0.20     |          | 147.0                          |                                | 147.0                          | 9.7                            | 137.3                                |
| D-1 L                           | 298.0                          | 0.20     |          | 59.6                           |                                | 59.6                           | 6.9                            | 52.7                                 |
| D-1 M                           | 673.0                          | 0.20     |          | 135.0                          |                                | 135.0                          | 16.8                           | 118.2                                |
| D-1 O                           | 351.0                          | 0.20     |          | 70.2                           |                                | 70.2                           | 2.4                            | 67.8                                 |
| D-1 P                           | 752.0                          | 0.30     |          | 226.0                          |                                | 226.0                          | 5.5                            | 220.5                                |
| D-1 R                           | 644.0                          | 0.30     |          | 199.0                          |                                | 199.0                          | 12.8                           | 186.2                                |
| THOMPSON LAKE<br>041-11W4       |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE                       | 3 970.0                        | 0.20     |          | 794.0                          |                                | 794.0                          | 657.5                          | 136.5                                |
| GLAUCONITIC A                   | 333.0                          | 0.05     |          | 16.7                           |                                | 16.7                           | 0.2                            | 16.5                                 |
| OSTRACOD A                      | 154.0                          | 0.05     |          | 7.7                            |                                | 7.7                            | 2.5                            | 5.2                                  |
| ELLERSLIE A                     | 1 050.0                        | 0.10     |          | 105.0                          |                                | 105.0                          | 38.0                           | 67.0                                 |
| THORSBY 049-01W5                |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                   | 4 270.0                        | 0.10     |          | 427.0                          |                                | 427.0                          | 85.5                           | 341.5                                |
| GLAUCONITIC B                   | 701.0                          | 0.10     |          | 70.1                           |                                | 70.1                           | 27.3                           | 42.8                                 |
| LOWER MANNVILLE A               | 303.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.5                            | 0.1                                  |
| OSTRACOD A                      | 78.7                           | 0.10     |          | 7.9                            |                                | 7.9                            | 0.2                            | 7.7                                  |
| THREE HILLS CREEK<br>035-25W4   |                                |          |          |                                |                                |                                |                                |                                      |
| PEKISK0                         | 65.8                           | <0.03    |          | 1.6                            |                                | 1.6                            | 1.6                            |                                      |
| D-2 A                           | 82.1                           | 0.20     |          | 16.4                           |                                | 16.4                           | 2.3                            | 14.1                                 |
| TINDASTOLL 036-01W5             |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A                   | 2 800.0                        | 0.10     |          | 280.0                          |                                | 280.0                          | 69.0                           | 211.0                                |
| BELLY RIVER B                   | 480.0                          | 0.01     |          | 4.8                            |                                | 4.8                            | 1.5                            | 3.3                                  |
| BELLY RIVER C                   | 248.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| BELLY RIVER E                   | 275.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| BELLY RIVER F                   | 442.0                          | 0.10     |          | 44.2                           |                                | 44.2                           | 0.6                            | 43.6                                 |
| LOWER MANNVILLE A               | 489.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| PEKISK0 A                       | 228.0                          | 0.04     |          | 9.1                            |                                | 9.1                            | 1.5                            | 7.6                                  |
| TOMAHAWK 052-05W5               |                                |          |          |                                |                                |                                |                                |                                      |
| NORDEGG A                       | 1 420.0                        | 0.10     |          | 142.0                          |                                | 142.0                          | 12.6                           | 129.4                                |
| TONY CREEK NORTH<br>064-21W5    |                                |          |          |                                |                                |                                |                                |                                      |
| CADDMIN A                       | 265.0                          | 0.03     |          | 8.0                            |                                | 8.0                            | 3.8                            | 4.2                                  |
| TROCHU 033-22W4                 |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ A                  | 922.0                          | 0.05     |          | 46.1                           |                                | 46.1                           | 23.5                           | 22.6                                 |
| BASAL QUARTZ B                  | 762.0                          | 0.03     |          | 22.9                           |                                | 22.9                           | 2.9                            | 20.0                                 |
| TROUT 090-03W5                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER A                     | 517.0                          | 0.35     |          | 181.0                          |                                | 181.0                          | 12.7                           | 168.3                                |
| TURIN 010-18W4                  |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B               | 235.0                          | 0.06     |          | 14.1                           |                                | 14.1                           | 11.5                           | 2.6                                  |
| UPPER MANNVILLE H               | 1 800.0                        | 0.10     |          | 180.0                          |                                | 180.0                          | 97.9                           | 82.1                                 |
| UPPER MANNVILLE I               | 56.2                           | 0.10     |          | 5.6                            |                                | 5.6                            | 0.5                            | 5.1                                  |
| UPPER MANNVILLE K               | 1 000.0                        | 0.10     |          | 100.0                          |                                | 100.0                          | 41.3                           | 58.7                                 |
| LOWER MANNVILLE B               | 780.0                          | 0.01     |          | 7.8                            |                                | 7.8                            | 2.9                            | 4.9                                  |
| LOWER MANNVILLE G               | 73.1                           | <0.05    |          | 3.1                            |                                | 3.1                            | 3.1                            |                                      |
| LOWER MANNVILLE H               | 232.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| LOWER MANNVILLE I               | 95.2                           | <0.03    |          | 2.6                            |                                | 2.6                            | 2.6                            |                                      |
| LOWER MANNVILLE O               | 92.6                           | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| LOWER MANNVILLE V               | 483.0                          | 0.10     |          | 48.3                           |                                | 48.3                           | 22.1                           | 26.2                                 |
| LOWER MANNVILLE W               | 246.0                          | 0.10     |          | 24.6                           |                                | 24.6                           | 6.2                            | 18.4                                 |
| LOWER MANNVILLE CC              | 799.0                          | 0.10     |          | 79.9                           |                                | 79.9                           | 22.5                           | 57.4                                 |
| LOWER MANNVILLE DD              | 224.0                          | 0.10     |          | 22.4                           |                                | 22.4                           | 9.9                            | 12.5                                 |
| LOWER MANNVILLE EE              | 124.0                          | 0.15     |          | 18.6                           |                                | 18.6                           | 7.2                            | 11.4                                 |
| LOWER MANNVILLE FF              | 344.0                          | 0.10     |          | 34.4                           |                                | 34.4                           | 10.0                           | 24.4                                 |
| LOWER MANNVILLE GG              | 167.0                          | 0.15     |          | 25.0                           |                                | 25.0                           | 12.6                           | 12.4                                 |
| LOWER MANNVILLE HH              | 89.0                           | 0.10     |          | 8.9                            |                                | 8.9                            | 1.3                            | 7.6                                  |
| LOWER MANNVILLE II              | 946.0                          | 0.25     |          | 237.0                          |                                | 237.0                          | 39.0                           | 198.0                                |
| LOWER MANNVILLE JJ              | 58.3                           | 0.10     |          | 5.8                            |                                | 5.8                            | 4.2                            | 1.6                                  |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64   | 39.30                       | 0.045    | 0.29          | 0.79      | 84                             | 843               | 59   | 18 976              | 1 799.8                    | 1983         | 84 01                          |
| 64   | 45.00                       | 0.030    | 0.40          | 0.83      | 67                             | 823               | 62   | 18 334              | 1 774.0                    | 1983         | 84 11                          |
| 64   | 24.50                       | 0.030    | 0.28          | 0.79      | 62                             | 823               | 58   | 18 423              | 1 769.5                    | 1983         | 85 07 - ABAND 85 03            |
| 64   | 44.37                       | 0.040    | 0.18          | 0.79      | 62                             | 823               | 58   | 19 580              | 1 882.5                    | 1984         | 84 11                          |
| 64   | 28.50                       | 0.030    | 0.31          | 0.79      | 80                             | 843               | 58   | 9 600               | 1 776.5                    | 1984         | 84 12                          |
| 64   | 46.20                       | 0.040    | 0.28          | 0.79      | 80                             | 843               | 59   | 9 600               | 1 761.9                    | 1984         | 84 12                          |
| 64   | 31.70                       | 0.030    | 0.27          | 0.79      | 78                             | 840               | 60   | 9 500               | 1 802.9                    | 1984         | 85 02                          |
| 64   | 66.40                       | 0.040    | 0.44          | 0.79      | 72                             | 827               | 64   | 8 250               | 1 787.8                    | 1984         | 85 02                          |
| 64   | 30.98                       | 0.053    | 0.20          | 0.79      | 78                             | 827               | 59   | 8 500               | 1 804.9                    | 1984         | 85 04                          |
| 549  | 3.54                        | 0.290    | 0.25          | 0.94      | 27                             | 892               | 33   | 6 340               | 944.0                      | 1958         | 83 12 - GPP                    |
| 32   | 7.80                        | 0.230    | 0.37          | 0.92      | 32                             | 916               | 32   | 6 744               | 964.4                      | 1982         | 83 02 - SUSP 84 04             |
| 16   | 7.10                        | 0.220    | 0.25          | 0.82      | 28                             | 949               | 37   | 6 358               | 965.8                      | 1983         | 83 11                          |
| 112  | 5.24                        | 0.270    | 0.28          | 0.92      | 32                             | 912               | 34   | 6 490               | 965.8                      | 1982         | 83 08                          |
| 320  | 20.62                       | 0.120    | 0.30          | 0.77      | 86                             | 849               | 54   | 12 220              | 1 489.9                    | 1979         | 85 12                          |
| 64   | 8.63                        | 0.180    | 0.17          | 0.85      |                                |                   |      | 12 222              | 1 450.3                    | 1973         | 75 12 - GPP                    |
| 64   | 9.00                        | 0.090    | 0.22          | 0.75      | 89                             | 866               | 55   | 12 243              | 1 522.5                    | 1979         | 83 12 - SUSP 83 12             |
| 64   | 1.54                        | 0.152    | 0.30          | 0.75      | 110                            | 866               | 53   | 12 145              | 1 511.0                    | 1981         | 82 06 - SUSP 84 01             |
| 65   | 5.58                        | 0.037    | 0.40          | 0.82      | 71                             | 860               | 66   | 11 720              | 1 794.1                    | 1968         | 73 02 - SUSP 72 01             |
| 64   | 4.70                        | 0.050    | 0.22          | 0.70      | 130                            | 841               | 65   | 17 135              | 2 150.0                    | 1984         | 84 11                          |
| 904  | 3.50                        | 0.150    | 0.33          | 0.88      | 50                             | 827               | 40   | 5 951               | 1 175.8                    | 1980         | 85 09                          |
| 64   | 9.80                        | 0.150    | 0.42          | 0.88      | 52                             | 865               | 35   | 5 462               | 1 184.3                    | 1981         | 85 12                          |
| 64   | 3.70                        | 0.170    | 0.30          | 0.88      | 36                             | 876               | 43   | 6 072               | 1 197.0                    | 1983         | 83 07 - ABAND 83 05            |
| 64   | 4.10                        | 0.170    | 0.30          | 0.88      | 36                             | 815               | 43   | 5 081               | 1 160.0                    | 1983         | 83 07 - ABAND 83 09            |
| 64   | 10.20                       | 0.140    | 0.45          | 0.88      | 36                             | 815               | 43   | 4 832               | 1 188.7                    | 1983         | 84 05                          |
| 64   | 13.00                       | 0.120    | 0.30          | 0.70      | 155                            | 897               | 70   | 27 500              | 1 997.8                    | 1981         | 82 02 - ABAND 82 09            |
| 64   | 5.20                        | 0.110    | 0.20          | 0.78      | 85                             | 890               | 70   | 18 000              | 2 055.5                    | 1982         | 84 12                          |
| 320  | 4.85                        | 0.180    | 0.34          | 0.77      | 115                            | 887               | 53   | 15 112              | 1 651.8                    | 1981         | 83 05                          |
| 64   | 6.16                        | 0.120    | 0.30          | 0.80      | 74                             | 887               | 82   | 14 780              | 1 880.3                    | 1977         | 85 12 - GPP                    |
| 64   | 15.41                       | 0.200    | 0.45          | 0.85      |                                |                   |      | 8 833               | 1 479.4                    | 1970         | 78 12 - GPP                    |
| 128  | 6.83                        | 0.180    | 0.43          | 0.85      | 52                             | 873               | 49   | 8 786               | 1 520.0                    | 1982         | 85 12                          |
| 256  | 3.81                        | 0.085    | 0.33          | 0.93      | 23                             | 835               | 39   | 13 268              | 1 348.9                    | 1984         | 85 08                          |
| 64   | 3.69                        | 0.180    | 0.35          | 0.85      | 63                             | 904               | 31   | 11 360              | 1 082.3                    | 1973         | 85 11 - GPP                    |
| 320  | 6.30                        | 0.160    | 0.35          | 0.86      | 68                             | 869               | 31   | 11 221              | 1 013.0                    | 1980         | 83 11                          |
| 32   | 1.80                        | 0.180    | 0.37          | 0.86      | 70                             | 869               | 31   | 10 467              | 999.1                      | 1981         | 82 12 - GPP                    |
| 128  | 4.50                        | 0.240    | 0.15          | 0.86      | 68                             | 869               | 31   | 11 181              | 1 008.7                    | 1981         | 83 11                          |
| 387  | 1.80                        | 0.190    | 0.32          | 0.85      | 62                             | 881               | 36   | 11 480              | 1 062.2                    | 1974         | 83 12                          |
| 64   | 1.52                        | 0.160    | 0.45          | 0.85      | 33                             | 876               | 66   | 11 620              | 1 068.9                    | 1974         | 82 12 - SUSP 76 09             |
| 64   | 3.66                        | 0.190    | 0.40          | 0.86      | 85                             | 881               | 38   | 11 270              | 1 058.9                    | 1974         | 79 03 - ABAND 82 05            |
| 65   | 1.83                        | 0.170    | 0.45          | 0.86      | 66                             | 881               | 31   | 11 330              | 1 076.2                    | 1974         | 83 01 - ABAND 82 08            |
| 64   | 2.16                        | 0.120    | 0.35          | 0.86      | 59                             | 898               | 34   | 11 300              | 1 047.0                    | 1976         | 79 02 - SUSP 78 10             |
| 256  | 1.98                        | 0.160    | 0.30          | 0.85      | 110                            | 880               | 37   | 11 681              | 1 100.8                    | 1980         | 83 12 - GPP                    |
| 64   | 3.30                        | 0.190    | 0.28          | 0.85      | 66                             | 874               | 31   | 10 586              | 1 096.8                    | 1979         | 81 09                          |
| 456  | 1.32                        | 0.218    | 0.30          | 0.87      | 60                             | 871               | 31   | 11 186              | 1 014.8                    | 1980         | 85 07 - GPP                    |
| 121  | 1.50                        | 0.200    | 0.30          | 0.88      | 45                             | 866               | 49   | 11 175              | 1 015.0                    | 1982         | 85 12 - GPP                    |
| 64   | 1.50                        | 0.200    | 0.25          | 0.86      | 68                             | 889               | 30   | 11 101              | 1 015.0                    | 1982         | 85 12                          |
| 128  | 2.27                        | 0.180    | 0.27          | 0.90      | 38                             | 892               | 32   | 10 833              | 1 005.7                    | 1982         | 85 06                          |
| 64   | 1.71                        | 0.200    | 0.15          | 0.90      | 38                             | 892               | 32   | 9 907               | 1 011.5                    | 1982         | 84 12                          |
| 64   | 1.50                        | 0.180    | 0.40          | 0.86      | 62                             | 887               | 32   | 11 321              | 1 052.2                    | 1974         | 83 06                          |
| 526  | 1.51                        | 0.210    | 0.30          | 0.81      | 87                             | 887               | 35   | 11 487              | 1 062.1                    | 1983         | 84 10                          |
| 64   | 1.00                        | 0.200    | 0.47          | 0.86      | 62                             | 887               | 32   | 11 249              | 1 102.5                    | 1983         | 84 02                          |

TABLE 2-4

| FIELD<br>POOL                   | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|---------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                 | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                 |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                 | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| TURIN 010-18W4<br>(CONTINUED)   |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE KK              | 70.2                           | 0.10     |          | 7.0                            |                                | 7.0                            | 0.2                            | 6.8                                  |
| LOWER MANNVILLE LL              | 348.0                          | 0.10     |          | 34.8                           |                                | 34.8                           | 6.6                            | 28.2                                 |
| LOWER MANNVILLE MM              | 35.1                           | 0.10     |          | 3.5                            |                                | 3.5                            | 2.3                            | 1.2                                  |
| LOWER MANNVILLE OD              | 48.4                           | 0.10     |          | 4.8                            |                                | 4.8                            | 0.1                            | 4.7                                  |
| LOWER MANNVILLE PP              | 57.4                           | 0.10     |          | 5.7                            |                                | 5.7                            | 1.1                            | 4.6                                  |
| LOWER MANNVILLE RR              | 28.5                           | 0.15     |          | 4.3                            |                                | 4.3                            | 1.9                            | 2.4                                  |
| TURNER VALLEY<br>020-03W5       |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE C                     | 90.3                           | 0.03     |          | 2.7                            |                                | 2.7                            | 1.8                            | 0.9                                  |
| BLAIRMORE A&B                   | 815.0                          | 0.01     |          | 8.2                            |                                | 8.2                            | 5.3                            | 2.9                                  |
| RUNDLE WATER FLOOD              | 159 000.0                      | 0.12     | 0.02     | 19 100.0                       | 3 180.0                        | 22 300.0                       | 21 690.0                       | 610.0                                |
| RUNDLE B                        | 355.0                          | 0.03     |          | 10.7                           |                                | 10.7                           | 1.8                            | 8.9                                  |
| SHALLOW                         | 715.0                          | 0.12     |          | 85.8                           |                                | 85.8                           | 64.4                           | 21.4                                 |
| TWINING 031-24W4                |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B               | 143.0                          | <0.01    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| GLAUCONITIC A                   | 101.0                          | <0.01    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| GLAUCONITIC B                   | 75.4                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LOWER MANNVILLE B               | 1 890.0                        |          |          | 93.8                           | 272.0                          | 366.0                          | 215.9                          | 150.1                                |
| TOTAL                           |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                    | 76.5                           | 0.05     |          | 3.8                            |                                | 3.8                            |                                |                                      |
| WATER FLOOD AREA                | 1 810.0                        | 0.05     | 0.15     | 90.0                           | 272.0                          | 362.0                          |                                |                                      |
| LOWER MANNVILLE C               | 249.0                          | 0.10     |          | 24.9                           |                                | 24.9                           | 3.9                            | 21.0                                 |
| LOWER MANNVILLE F               | 100.0                          | 0.11     |          | 11.0                           |                                | 11.0                           | 7.8                            | 3.2                                  |
| LOWER MANNVILLE G               | 236.0                          | 0.10     |          | 23.6                           |                                | 23.6                           | 11.4                           | 12.2                                 |
| LOWER MANNVILLE H               | 194.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LOWER MANNVILLE J               | 295.0                          | 0.10     |          | 29.5                           |                                | 29.5                           | 15.6                           | 13.9                                 |
| RUNDLE A & LOWER<br>MANNVILLE A | 89 000.0                       | 0.08     |          | 7 120.0                        |                                | 7 120.0                        | 2 760.3                        | 4 359.7                              |
| TWINING NORTH<br>033-24W4       |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ A                  | 331.0                          | 0.01     |          | 3.3                            |                                | 3.3                            | 0.7                            | 2.6                                  |
| BASAL QUARTZ B                  | 215.0                          | 0.10     |          | 21.5                           |                                | 21.5                           | 0.3                            | 21.2                                 |
| BASAL QUARTZ C                  | 411.0                          | 0.10     |          | 41.1                           |                                | 41.1                           | 11.9                           | 29.2                                 |
| RUNDLE                          | 37 600.0                       | 0.04     |          | 1 500.0                        |                                | 1 500.0                        | 1 086.0                        | 414.0                                |
| UTIKUMA LAKE 081-09W5           |                                |          |          |                                |                                |                                |                                |                                      |
| SLAVE POINT A                   | 197.0                          | 0.25     |          | 49.3                           |                                | 49.3                           | 4.3                            | 45.0                                 |
| SLAVE POINT B                   | 67.1                           | 0.25     |          | 16.8                           |                                | 16.8                           | 1.0                            | 15.8                                 |
| SLAVE POINT C                   | 128.0                          | 0.25     |          | 32.0                           |                                | 32.0                           | 1.5                            | 30.5                                 |
| SLAVE POINT D                   | 184.0                          | 0.25     |          | 46.0                           |                                | 46.0                           | 1.7                            | 44.3                                 |
| SLAVE POINT E                   | 106.0                          | 0.25     |          | 26.5                           |                                | 26.5                           | 2.5                            | 24.0                                 |
| SLAVE POINT F                   | 105.0                          | <0.01    |          | 1.0                            |                                | 1.0                            |                                | 1.0                                  |
| SLAVE POINT G                   | 111.0                          | 0.25     |          | 27.8                           |                                | 27.8                           | 0.7                            | 27.1                                 |
| GILWOOD D                       | 600.0                          | 0.23     |          | 136.0                          | ERSD                           | 136.0                          | 65.2                           | 70.8                                 |
| GILWOOD E                       | 84.3                           | 0.20     |          | 16.9                           |                                | 16.9                           | 0.6                            | 16.3                                 |
| KEG RIVER                       | 17 000.0                       | 0.45     |          | 7 650.0                        |                                | 7 650.0                        | 4 611.8                        | 3 038.2                              |
| SANDSTONE A                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 256.0                          | 0.35     |          | 89.6                           |                                | 89.6                           | 50.0                           | 39.6                                 |
| SANDSTONE H                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 824.0                          | 0.35     |          | 288.0                          |                                | 288.0                          | 118.8                          | 169.2                                |
| SANDSTONE I                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 620.0                          | 0.35     |          | 217.0                          |                                | 217.0                          | 104.0                          | 113.0                                |
| SANDSTONE K                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 141.0                          | 0.25     |          | 35.3                           |                                | 35.3                           | 11.7                           | 23.6                                 |
| SANDSTONE L                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 1 010.0                        | 0.25     |          | 253.0                          |                                | 253.0                          | 87.8                           | 165.2                                |
| SANDSTONE M                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 2 900.0                        | 0.35     |          | 1 020.0                        |                                | 1 020.0                        | 572.9                          | 447.1                                |
| SANDSTONE N                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 440.0                          | 0.10     |          | 44.0                           |                                | 44.0                           | 16.1                           | 27.9                                 |
| SANDSTONE O                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 296.0                          | 0.25     |          | 74.0                           |                                | 74.0                           | 9.6                            | 64.4                                 |
| SANDSTONE P                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 125.0                          | 0.35     |          | 43.8                           |                                | 43.8                           | 21.3                           | 22.5                                 |
| SANDSTONE R                     |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER                       | 365.0                          | 0.35     |          | 128.0                          |                                | 128.0                          | 34.7                           | 93.3                                 |
| SANDSTONE S                     |                                |          |          |                                |                                |                                |                                |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64     | 1.70                        | 0.150    | 0.50          | 0.86      | 62                             | 887               | 32   | 10 391              | 1 092.2                    | 1983         | 84 03                          |
| 64     | 5.40                        | 0.180    | 0.31          | 0.81      | 86                             | 817               | 35   | 11 508              | 1 073.2                    | 1983         | 84 07                          |
| 64     | 0.70                        | 0.130    | 0.30          | 0.86      | 62                             | 887               | 32   | 9 350               | 1 089.2                    | 1984         | 84 09                          |
| 32     | 2.00                        | 0.120    | 0.30          | 0.90      | 38                             | 892               | 32   | 6 216               | 1 005.7                    | 1984         | 84 11                          |
| 16     | 2.00                        | 0.240    | 0.17          | 0.90      | 38                             | 892               | 32   | 6 216               | 999.0                      | 1984         | 84 11                          |
| 64     | 0.50                        | 0.150    | 0.31          | 0.86      | 62                             | 887               | 32   | 9 350               | 1 010.3                    | 1984         | 85 06                          |
| 65     | 2.44                        | 0.110    | 0.20          | 0.65      |                                | 784               | 56   | 12 800              | 1 545.3                    | 1976         | 82 12 - SUSP 85 07             |
| 65     | 16.76                       | 0.117    | 0.12          | 0.73      | 83                             | 806               | 52   | 5 420               | 1 363.4                    | 1975         | 82 12 - GPP                    |
| 6 763  | 47.55                       | 0.082    | 0.10          | 0.67      | 148                            | 825               | 60   | 19 130              | 2 557.0                    | 1936         | 83 12 - GPP                    |
| 64     | 28.50                       | 0.044    | 0.34          | 0.67      | 146                            | 824               | 66   | 26 897              | 3 103.9                    | 1981         | 85 12 - GPP                    |
|        |                             |          |               |           |                                |                   | 41   |                     | 1 460.0                    | 1910         | 68 07 - GPP                    |
| 64     | 2.46                        | 0.170    | 0.35          | 0.82      | 80                             | 839               | 36   | 10 300              | 1 577.0                    | 1975         | 77 05 - ABAND 77 05            |
| 64     | 2.50                        | 0.150    | 0.50          | 0.84      | 50                             | 895               | 49   | 10 953              | 1 658.8                    | 1981         | 82 05 - SUSP 83 08             |
| 64     | 1.80                        | 0.140    | 0.45          | 0.85      | 54                             | 895               | 41   | 10 280              | 1 620.0                    | 1973         | 82 08 - SUSP 82 08             |
| 1 408  |                             |          |               |           | 79                             | 876               | 52   | 11 720              | 1 581.6                    | 1960         | 82 08 - GPP                    |
| 32     | 2.44                        | 0.170    | 0.28          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 1 376  | 1.67                        | 0.137    | 0.28          | 0.80      |                                |                   |      |                     |                            |              |                                |
| 65     | 3.35                        | 0.180    | 0.22          | 0.82      | 53                             | 887               | 59   | 10 000              | 1 586.8                    | 1970         | 77 11                          |
| 125    | 1.03                        | 0.150    | 0.35          | 0.80      | 85                             | 869               | 57   | 10 980              | 1 630.6                    | 1977         | 84 02 - GPP                    |
| 64     | 4.00                        | 0.150    | 0.25          | 0.82      | 78                             | 886               | 53   | 11 530              | 1 597.5                    | 1980         | 80 09                          |
| 64     | 2.40                        | 0.220    | 0.30          | 0.82      | 78                             | 875               | 50   | 11 157              | 1 626.7                    | 1973         | 83 12 - SUSP 83 05             |
| 128    | 3.11                        | 0.140    | 0.34          | 0.80      | 80                             | 873               | 50   | 10 644              | 1 539.5                    | 1965         | 85 12                          |
| 20 547 | 14.48                       | 0.057    | 0.36          | 0.82      | 66                             | 876               | 61   | 11 410              | 1 650.5                    | 1952         | 74 08 - GPP - ADMIN 2          |
| 64     | 5.00                        | 0.180    | 0.30          | 0.82      | 58                             | 888               | 51   | 11 000              | 1 624.5                    | 1982         | 85 12                          |
| 64     | 2.80                        | 0.200    | 0.25          | 0.80      | 74                             | 883               | 50   | 9 648               | 1 581.3                    | 1980         | 81 08 - SUSP 81 09             |
| 64     | 6.30                        | 0.170    | 0.25          | 0.80      | 51                             | 887               | 42   | 10 317              | 1 596.5                    | 1981         | 84 01                          |
| 6 490  | 12.96                       | 0.070    | 0.23          | 0.83      | 62                             | 876               | 62   | 11 450              | 1 659.9                    | 1961         | 82 12 - GPP                    |
| 64     | 6.50                        | 0.080    | 0.35          | 0.91      | 28                             | 843               | 49   | 12 498              | 1 639.0                    | 1982         | 83 04                          |
| 64     | 2.40                        | 0.080    | 0.40          | 0.91      | 27                             | 843               | 50   | 14 259              | 1 632.6                    | 1983         | 83 11                          |
| 64     | 6.10                        | 0.060    | 0.40          | 0.91      | 28                             | 843               | 48   | 9 347               | 1 631.9                    | 1983         | 84 01                          |
| 64     | 7.60                        | 0.064    | 0.35          | 0.91      | 28                             | 843               | 49   | 15 131              | 1 635.9                    | 1983         | 84 01                          |
| 64     | 4.00                        | 0.070    | 0.35          | 0.91      | 27                             | 840               | 51   | 16 517              | 1 646.6                    | 1984         | 84 10                          |
| 64     | 4.50                        | 0.080    | 0.50          | 0.91      | 27                             | 848               | 51   | 3 825               | 1 672.9                    | 1984         | 84 11 - SUSP 84 08             |
| 64     | 4.00                        | 0.070    | 0.32          | 0.91      | 27                             | 848               | 51   | 3 825               | 1 672.9                    | 1984         | 84 11                          |
| 512    | 2.05                        | 0.106    | 0.35          | 0.83      | 71                             | 819               | 49   | 17 530              | 1 726.7                    | 1977         | 84 12                          |
| 64     | 1.24                        | 0.160    | 0.20          | 0.83      | 62                             | 830               | 48   | 13 967              | 1 692.9                    | 1977         | 84 12                          |
| 4 207  | 3.60                        | 0.186    | 0.29          | 0.85      | 65                             | 820               | 49   | 18 270              | 1 727.4                    | 1963         | 85 10                          |
| 84     | 2.70                        | 0.190    | 0.30          | 0.85      | 65                             | 825               | 49   | 15 510              | 1 755.3                    | 1977         | 81 11                          |
| 128    | 6.13                        | 0.190    | 0.35          | 0.85      | 65                             | 820               | 49   | 15 130              | 1 761.7                    | 1977         | 81 11                          |
| 139    | 4.25                        | 0.180    | 0.30          | 0.85      | 65                             | 839               | 52   | 15 630              | 1 760.9                    | 1977         | 81 11                          |
| 64     | 2.47                        | 0.150    | 0.30          | 0.85      | 65                             | 829               | 54   | 15 000              | 1 737.7                    | 1978         | 78 10                          |
| 320    | 2.87                        | 0.190    | 0.32          | 0.85      | 65                             | 825               | 52   | 17 430              | 1 726.5                    | 1978         | 84 08                          |
| 550    | 5.30                        | 0.180    | 0.35          | 0.85      | 65                             | 825               | 52   | 15 490              | 1 737.7                    | 1977         | 81 11                          |
| 128    | 3.50                        | 0.175    | 0.34          | 0.85      | 65                             | 810               | 49   | 15 620              | 1 754.8                    | 1979         | 85 12 - GPP                    |
| 64     | 5.29                        | 0.145    | 0.29          | 0.85      | 65                             | 824               | 48   | 16 737              | 1 729.9                    | 1979         | 79 12                          |
| 64     | 1.91                        | 0.170    | 0.29          | 0.85      | 65                             | 825               | 43   | 13 957              | 1 740.3                    | 1979         | 81 11                          |
| 128    | 2.74                        | 0.180    | 0.32          | 0.85      | 59                             | 820               | 45   | 15 062              | 1 715.2                    | 1980         | 82 05                          |

TABLE 2-4

| FIELD<br>POOL                        | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                      | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                      |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                      | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| UTIKUMA LAKE 081-09W5<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER<br>SANDSTONE T             | 459.0                          | 0.25     |          | 115.0                          |                                | 115.0                          | 30.8                           | 84.2                                 |
| KEG RIVER<br>SANDSTONE U             | 2 350.0                        | 0.25     |          | 588.0                          |                                | 588.0                          | 76.9                           | 511.1                                |
| KEG RIVER<br>SANDSTONE V             | 222.0                          | 0.25     |          | 55.5                           |                                | 55.5                           | 20.3                           | 35.2                                 |
| KEG RIVER<br>SANDSTONE W             | 58.7                           | 0.30     |          | 17.6                           |                                | 17.6                           | 7.6                            | 10.0                                 |
| KEG RIVER<br>SANDSTONE X             | 250.0                          | 0.25     |          | 62.5                           |                                | 62.5                           | 16.4                           | 46.1                                 |
| KEG RIVER<br>SANDSTONE Y             | 149.0                          | 0.30     |          | 44.7                           |                                | 44.7                           | 7.9                            | 36.8                                 |
| KEG RIVER<br>SANDSTONE Z             | 274.0                          | 0.30     |          | 82.2                           |                                | 82.2                           | 21.7                           | 60.5                                 |
| KEG RIVER<br>SANDSTONE AA            | 116.0                          | 0.35     |          | 40.6                           |                                | 40.6                           | 4.9                            | 35.7                                 |
| KEG RIVER<br>SANDSTONE BB            | 318.0                          | 0.25     |          | 79.5                           |                                | 79.5                           | 19.9                           | 59.6                                 |
| KEG RIVER<br>SANDSTONE CC            | 157.0                          | 0.25     |          | 39.3                           |                                | 39.3                           | 7.7                            | 31.6                                 |
| KEG RIVER<br>SANDSTONE DD            | 156.0                          | 0.30     |          | 46.8                           |                                | 46.8                           | 6.5                            | 40.3                                 |
| KEG RIVER<br>SANDSTONE EE            | 393.0                          | 0.30     |          | 118.0                          |                                | 118.0                          | 12.8                           | 105.2                                |
| KEG RIVER<br>SANDSTONE FF            | 252.0                          | 0.35     |          | 88.2                           |                                | 88.2                           | 9.7                            | 78.5                                 |
| VALHALLA 075-10W6                    |                                |          |          |                                |                                |                                |                                |                                      |
| DOE CREEK I TOTAL                    | 31 300.0                       |          |          | 2 820.0                        | 538.0                          | 3 360.0                        | 468.5                          | 2 891.5                              |
| PRIMARY AREA                         | 28 700.0                       | 0.09     |          | 2 590.0                        |                                | 2 590.0                        |                                |                                      |
| WATER FLOOD AREA                     | 2 560.0                        | 0.09     | 0.21     | 230.0                          | 538.0                          | 768.0                          |                                |                                      |
| DOE CREEK K                          | 152.0                          | 0.10     |          | 15.2                           |                                | 15.2                           | 2.0                            | 13.2                                 |
| DOE CREEK N                          | 37.0                           | 0.10     |          | 3.7                            |                                | 3.7                            | 2.4                            | 1.3                                  |
| CHARLIE LAKE B                       | 129.0                          | 0.10     |          | 12.9                           |                                | 12.9                           | 2.4                            | 10.5                                 |
| CHARLIE LAKE C                       | 35.8                           | 0.10     |          | 3.6                            |                                | 3.6                            | 2.6                            | 1.0                                  |
| CHARLIE LAKE D                       | 103.0                          | 0.10     |          | 10.3                           |                                | 10.3                           | 1.3                            | 9.0                                  |
| CHARLIE LAKE E                       | 260.0                          | 0.15     |          | 39.0                           |                                | 39.0                           | 2.6                            | 36.4                                 |
| CHARLIE LAKE F                       | 205.0                          | 0.15     |          | 30.8                           |                                | 30.8                           | 3.8                            | 27.0                                 |
| BOUNDARY B                           | 2 170.0                        | 0.15     |          | 326.0                          |                                | 326.0                          | 53.7                           | 272.3                                |
| BOUNDARY D                           | 369.0                          | 0.15     |          | 55.4                           |                                | 55.4                           | 14.9                           | 40.5                                 |
| BOUNDARY E                           | 63.0                           | 0.15     |          | 9.5                            |                                | 9.5                            | 4.0                            | 5.5                                  |
| BOUNDARY A &<br>CHARLIE LAKE A       | 90.1                           | 0.15     |          | 13.5                           |                                | 13.5                           | 9.2                            | 4.3                                  |
| HALFWAY C                            | 1 350.0                        | 0.20     |          | 270.0                          |                                | 270.0                          | 35.2                           | 234.8                                |
| VAUXHALL 012-17W4                    |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                    | 57.8                           | 0.10     |          | 5.8                            |                                | 5.8                            | 0.1                            | 5.7                                  |
| VEGA 061-03W5                        |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING B                             | 138.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| VIKING C                             | 109.0                          | 0.10     |          | 10.9                           |                                | 10.9                           | 0.5                            | 10.4                                 |
| VERGER 022-15W4                      |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE F                    | 182.0                          | 0.10     |          | 18.2                           |                                | 18.2                           | 2.8                            | 15.4                                 |
| VIRGINIA HILLS<br>065-13W5           |                                |          |          |                                |                                |                                |                                |                                      |
| GETHING A                            | 132.0                          | 0.15     |          | 19.8                           |                                | 19.8                           | 6.0                            | 13.8                                 |
| BELLOY A TOTAL                       | 10 200.0                       |          |          | 2 290.0                        | 1 520.0                        | 3 810.0                        | 1 391.3                        | 2 418.7                              |
| PRIMARY AREA                         | 122.0                          | 0.10     |          | 12.2                           |                                | 12.2                           |                                |                                      |
| WATER FLOOD AREA                     | 10 100.0                       | <0.23    | 0.15     | 2 280.0                        | 1 520.0                        | 3 800.0                        |                                |                                      |
| BELLOY B                             | 67.0                           | 0.10     |          | 6.7                            |                                | 6.7                            | 0.1                            | 6.6                                  |
| BEAVERHILL LAKE<br>TOTAL             | 75 400.0                       |          |          | 17 200.0                       | 8 000.0                        | 25 200.0                       | 19 461.6                       | 5 738.4                              |
| PRIMARY AREA                         | 1 830.0                        | 0.23     |          | 421.0                          |                                | 421.0                          |                                |                                      |
| WATER FLOOD AREA                     | 73 600.0                       | <0.23    | 0.11     | 16 800.0                       | 8 000.0                        | 24 800.0                       |                                |                                      |
| BEAVERHILL LAKE B                    | 30.4                           | 0.15     |          | 4.6                            |                                | 4.6                            |                                | 4.6                                  |
| BEAVERHILL LAKE C                    | 106.0                          | 0.25     |          | 26.5                           |                                | 26.5                           | 1.7                            | 24.8                                 |
| VIRGO 115-06W6                       |                                |          |          |                                |                                |                                |                                |                                      |
| SULPHUR POINT E                      | 35.0                           | 0.20     |          | 7.0                            |                                | 7.0                            | 0.4                            | 6.6                                  |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64     | 7.09                        | 0.170    | 0.30          | 0.85      | 65                             |                   | 49   | 13 732              | 1 739.2                    | 1981         | 81 09                          |
| 320    | 7.16                        | 0.180    | 0.33          | 0.85      | 58                             | 827               | 50   | 15 910              | 1 740.0                    | 1980         | 83 03                          |
| 64     | 3.20                        | 0.180    | 0.29          | 0.85      | 65                             | 825               | 49   | 16 396              | 1 742.6                    | 1979         | 79 10                          |
| 64     | 0.76                        | 0.200    | 0.29          | 0.85      | 65                             | 824               | 60   | 15 323              | 1 731.8                    | 1982         | 83 01                          |
| 64     | 4.50                        | 0.170    | 0.40          | 0.85      | 65                             | 822               | 49   | 15 450              | 1 736.7                    | 1982         | 83 04                          |
| 64     | 2.80                        | 0.140    | 0.30          | 0.85      | 60                             | 845               | 49   | 14 234              | 1 731.8                    | 1983         | 83 05                          |
| 64     | 4.00                        | 0.180    | 0.30          | 0.85      | 55                             | 823               | 50   | 15 011              | 1 731.0                    | 1983         | 83 08                          |
| 64     | 1.60                        | 0.190    | 0.30          | 0.85      | 57                             | 820               | 44   | 12 633              | 1 746.7                    | 1983         | 83 08                          |
| 64     | 4.30                        | 0.200    | 0.32          | 0.85      | 50                             | 843               | 61   | 14 854              | 1 739.5                    | 1983         | 83 11                          |
| 64     | 2.00                        | 0.200    | 0.38          | 0.85      | 55                             | 843               | 50   | 14 443              | 1 736.0                    | 1983         | 84 02                          |
| 64     | 2.35                        | 0.200    | 0.39          | 0.85      | 65                             | 843               | 49   | 14 064              | 1 734.5                    | 1983         | 84 08                          |
| 128    | 2.57                        | 0.210    | 0.33          | 0.85      | 67                             | 830               | 41   | 17 022              | 1 732.4                    | 1978         | 84 10                          |
| 64     | 3.28                        | 0.199    | 0.29          | 0.85      | 65                             | 820               | 49   | 11 708              | 1 725.8                    | 1984         | 84 12                          |
| 8 952  |                             |          |               |           | 19                             | 858               | 29   | 3 807               | 702.2                      | 1982         | 85 12                          |
| 8 481  | 3.21                        | 0.220    | 0.49          | 0.94      |                                |                   |      |                     |                            |              |                                |
| 471    | 5.24                        | 0.230    | 0.52          | 0.94      |                                |                   |      |                     |                            |              |                                |
| 64     | 1.80                        | 0.250    | 0.40          | 0.88      | 22                             | 845               | 28   | 3 144               | 729.1                      | 1984         | 85 02                          |
| 69     | 0.61                        | 0.176    | 0.43          | 0.88      | 43                             | 840               | 27   | 3 600               | 553.5                      | 1983         | 85 10                          |
| 64     | 3.00                        | 0.110    | 0.14          | 0.71      | 133                            | 865               | 58   | 18 300              | 1 962.1                    | 1984         | 84 11                          |
| 64     | 0.80                        | 0.120    | 0.18          | 0.71      | 125                            | 836               | 58   | 18 958              | 2 004.1                    | 1984         | 84 11                          |
| 64     | 2.00                        | 0.120    | 0.14          | 0.78      | 80                             | 817               | 64   | 8 600               | 1 958.2                    | 1984         | 84 12                          |
| 64     | 5.00                        | 0.120    | 0.12          | 0.77      | 100                            | 829               | 73   | 15 402              | 1 971.8                    | 1984         | 85 03                          |
| 64     | 5.00                        | 0.100    | 0.17          | 0.77      | 100                            | 829               | 73   | 17 500              | 1 976.5                    | 1984         | 85 03                          |
| 1 069  | 1.81                        | 0.180    | 0.83          | 0.75      | 164                            | 32                | 73   | 19 634              | 2 019.2                    | 1973         | 85 03                          |
| 256    | 2.11                        | 0.110    | 0.15          | 0.73      | 150                            | 816               | 80   | 18 518              | 1 961.1                    | 1984         | 85 03                          |
| 64     | 1.60                        | 0.100    | 0.18          | 0.75      | 100                            | 865               | 60   | 13 500              | 1 912.8                    | 1984         | 84 12                          |
| 64     | 2.80                        | 0.090    | 0.22          | 0.73      | 149                            |                   | 72   | 18 133              | 1 978.8                    | 1981         | 84 02                          |
| 294    | 8.00                        | 0.130    | 0.34          | 0.67      | 145                            | 785               | 73   | 19 705              | 1 953.7                    | 1980         | 85 05                          |
| 64     | 1.00                        | 0.150    | 0.30          | 0.86      | 64                             | 895               | 30   | 11 069              | 1 027.9                    | 1980         | 83 01 - SUSP 83 08             |
| 64     | 2.00                        | 0.210    | 0.41          | 0.87      |                                | 849               | 32   | 5 863               | 833.0                      | 1980         | 85 12 - SUSP 84 04             |
| 64     | 1.50                        | 0.190    | 0.31          | 0.87      |                                | 846               | 30   | 5 863               | 810.0                      | 1980         | 82 03 - SUSP 84 04             |
| 64     | 4.20                        | 0.140    | 0.45          | 0.88      | 47                             | 861               | 35   | 9 373               | 1 073.2                    | 1982         | 82 12                          |
| 64     | 2.00                        | 0.170    | 0.23          | 0.79      | 100                            | 852               | 64   | 12 322              | 1 691.3                    | 1961         | 84 01                          |
| 1 948  |                             |          |               |           |                                |                   |      | 13 434              | 1 850.4                    | 1973         | 82 09                          |
| 64     | 3.39                        | 0.100    | 0.33          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 1 884  | 5.32                        | 0.174    | 0.31          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 64     | 2.35                        | 0.074    | 0.30          | 0.86      | 53                             | 884               | 69   | 11 390              | 1 826.0                    | 1978         | 83 03                          |
| 12 667 |                             |          |               |           | 88                             | 834               | 102  | 25 510              | 2 830.4                    | 1957         | 80 12                          |
| 1 745  | 3.00                        | 0.063    | 0.27          | 0.76      |                                |                   |      |                     |                            |              |                                |
| 10 922 | 12.40                       | 0.086    | 0.18          | 0.77      |                                |                   |      |                     |                            |              |                                |
| 64     | 1.62                        | 0.073    | 0.45          | 0.73      | 97                             | 852               | 99   | 13 438              | 2 752.8                    | 1983         | 84 01                          |
| 64     | 4.80                        | 0.070    | 0.35          | 0.76      | 80                             | 847               | 103  | 10 904              | 2 855.2                    | 1983         | 84 01                          |
| 16     | 4.90                        | 0.070    | 0.25          | 0.85      | 62                             | 860               | 50   | 13 646              | 1 372.4                    | 1977         | 84 05                          |

TABLE 2-4

| FIELD<br>POOL                     | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| VIRGO 115-06W6<br>(CONTINUED)     |                                |          |          |                                |                                |                                |                                |                                      |
| SULPHUR POINT A &<br>KEG RIVER MM | 249.0                          | 0.45     |          | 112.0                          |                                | 112.0                          | 99.8                           | 12.2                                 |
| MUSKEG A                          | 334.0                          | 0.20     |          | 66.7                           |                                | 66.7                           | 55.5                           | 11.1                                 |
| MUSKEG B                          | 72.3                           | 0.35     |          | 25.3                           |                                | 25.3                           | 12.6                           | 12.7                                 |
| MUSKEG C                          | 160.0                          | 0.22     |          | 35.2                           |                                | 35.2                           | 33.1                           | 2.1                                  |
| MUSKEG E                          | 59.6                           | <0.20    |          | 11.6                           |                                | 11.6                           | 11.6                           |                                      |
| MUSKEG G                          | 191.0                          | 0.25     |          | 47.7                           |                                | 47.7                           | 30.3                           | 17.4                                 |
| MUSKEG I                          | 207.0                          | 0.35     |          | 72.3                           |                                | 72.3                           | 39.0                           | 33.3                                 |
| MUSKEG J                          | 175.0                          | 0.20     |          | 35.0                           |                                | 35.0                           | 15.9                           | 19.1                                 |
| MUSKEG K                          | 440.0                          | <0.01    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| MUSKEG L                          | 159.0                          | 0.15     |          | 23.8                           |                                | 23.8                           | 11.8                           | 12.0                                 |
| MUSKEG M                          | 173.0                          | <0.03    |          | 4.1                            |                                | 4.1                            | 4.1                            |                                      |
| MUSKEG D                          | 462.0                          | 0.15     |          | 69.3                           |                                | 69.3                           | 11.0                           | 58.3                                 |
| MUSKEG Q                          | 943.0                          | <0.01    |          | 2.2                            |                                | 2.2                            | 2.2                            |                                      |
| MUSKEG R                          | 601.0                          | <0.01    |          | 5.0                            |                                | 5.0                            | 5.0                            |                                      |
| MUSKEG S                          | 240.0                          | 0.20     |          | 48.0                           |                                | 48.0                           | 0.5                            | 47.5                                 |
| MUSKEG D &<br>KEG RIVER L         | 429.0                          | 0.15     |          | 64.4                           |                                | 64.4                           | 53.0                           | 11.4                                 |
| MUSKEG P &<br>KEG RIVER R3R       | 185.0                          | 0.30     |          | 55.5                           |                                | 55.5                           | 0.9                            | 54.6                                 |
| KEG RIVER A                       | 222.0                          | 0.30     |          | 66.7                           |                                | 66.7                           | 43.2                           | 23.5                                 |
| KEG RIVER B                       | 397.0                          | 0.32     |          | 127.0                          | ERSO                           | 127.0                          | 123.3                          | 3.7                                  |
| KEG RIVER C                       | 139.0                          | 0.40     |          | 55.8                           |                                | 55.8                           | 46.6                           | 9.2                                  |
| KEG RIVER D                       | 540.0                          | <0.14    |          | 72.5                           |                                | 72.5                           | 72.5                           |                                      |
| KEG RIVER E                       | 620.0                          | 0.35     |          | 217.0                          | ERSO                           | 217.0                          | 205.1                          | 11.9                                 |
| KEG RIVER F                       | 159.0                          | <0.15    |          | 23.2                           |                                | 23.2                           | 23.2                           |                                      |
| KEG RIVER G                       | 461.0                          | 0.20     |          | 92.2                           |                                | 92.2                           | 70.8                           | 21.4                                 |
| KEG RIVER H                       | 636.0                          | 0.26     |          | 165.0                          |                                | 165.0                          | 132.9                          | 32.1                                 |
| KEG RIVER I                       | 359.0                          | 0.35     | 0.13     | 126.0                          | 46.7                           | 173.0                          | 108.8                          | 64.2                                 |
| WATER FLOOD                       |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER J                       | 159.0                          | 0.38     |          | 60.4                           |                                | 60.4                           | 53.7                           | 6.7                                  |
| KEG RIVER K                       | 198.0                          | 0.52     |          | 103.0                          |                                | 103.0                          | 88.6                           | 14.4                                 |
| KEG RIVER M                       | 270.0                          | <0.11    |          | 28.5                           |                                | 28.5                           | 28.5                           |                                      |
| KEG RIVER N                       | 159.0                          | 0.35     |          | 55.7                           |                                | 55.7                           | 39.6                           | 16.1                                 |
| KEG RIVER D                       | 159.0                          | 0.38     |          | 60.4                           | ERSO                           | 60.4                           | 34.2                           | 26.2                                 |
| KEG RIVER P                       | 350.0                          | 0.10     | 0.26     | 35.0                           | 91.0                           | 126.0                          | 33.1                           | 92.9                                 |
| WATER FLOOD                       |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER Q                       | 477.0                          | <0.10    |          | 45.8                           |                                | 45.8                           | 45.8                           |                                      |
| KEG RIVER R                       | 318.0                          | 0.35     | 0.05     | 111.0                          | 15.9                           | 127.0                          | 116.0                          | 11.0                                 |
| WATER FLOOD                       |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER S                       | 270.0                          | 0.30     |          | 81.0                           |                                | 81.0                           | 70.4                           | 10.6                                 |
| KEG RIVER T                       | 524.0                          | 0.20     |          | 105.0                          |                                | 105.0                          | 53.4                           | 51.6                                 |
| KEG RIVER U                       | 381.0                          | <0.11    |          | 39.6                           |                                | 39.6                           | 39.6                           |                                      |
| KEG RIVER V                       | 195.0                          | 0.35     |          | 68.3                           |                                | 68.3                           | 48.8                           | 19.5                                 |
| KEG RIVER W                       | 715.0                          | 0.30     |          | 215.0                          |                                | 215.0                          | 167.0                          | 48.0                                 |
| KEG RIVER X                       | 254.0                          | <0.11    |          | 26.3                           |                                | 26.3                           | 26.3                           |                                      |
| KEG RIVER Y                       | 250.0                          | 0.40     |          | 100.0                          |                                | 100.0                          | 76.6                           | 23.4                                 |
| KEG RIVER Z                       | 318.0                          | 0.39     | 0.09     | 124.0                          | 28.6                           | 153.0                          | 140.3                          | 12.7                                 |
| WATER FLOOD                       |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER AA                      | 572.0                          | 0.25     |          | 143.0                          |                                | 143.0                          | 95.2                           | 47.8                                 |
| KEG RIVER BB                      | 192.0                          | 0.40     |          | 76.8                           |                                | 76.8                           | 62.3                           | 14.5                                 |
| KEG RIVER CC                      | 30.7                           | 0.30     |          | 9.2                            |                                | 9.2                            | 4.7                            | 4.5                                  |
| KEG RIVER DD                      | 194.0                          | 0.38     | 0.11     | 73.7                           | 21.3                           | 95.0                           | 30.3                           | 64.7                                 |
| WATER FLOOD                       |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER EE                      | 127.0                          | 0.25     |          | 31.8                           |                                | 31.8                           | 25.4                           | 6.4                                  |
| KEG RIVER FF                      | 636.0                          | 0.10     |          | 63.6                           |                                | 63.6                           | 30.6                           | 33.0                                 |
| KEG RIVER GG                      | 636.0                          | 0.09     |          | 57.2                           |                                | 57.2                           | 51.7                           | 5.5                                  |
| KEG RIVER HH                      | 214.0                          | 0.35     |          | 75.0                           |                                | 75.0                           | 63.9                           | 11.1                                 |
| KEG RIVER II                      | 366.0                          | 0.35     |          | 128.0                          |                                | 128.0                          | 14.6                           | 113.4                                |
| KEG RIVER JJ                      | 556.0                          | 0.30     |          | 167.0                          |                                | 167.0                          | 127.4                          | 39.6                                 |
| KEG RIVER KK                      | 318.0                          | <0.08    |          | 25.0                           |                                | 25.0                           | 25.0                           |                                      |
| KEG RIVER LL                      | 95.3                           | 0.30     |          | 28.6                           |                                | 28.6                           | 11.0                           | 17.6                                 |
| KEG RIVER NN                      | 159.0                          | <0.31    |          | 48.6                           |                                | 48.6                           | 48.6                           |                                      |
| KEG RIVER OO                      | 159.0                          | 0.15     |          | 23.9                           |                                | 23.9                           | 16.2                           | 7.7                                  |
| KEG RIVER PP                      | 47.7                           | <0.06    |          | 2.8                            |                                | 2.8                            | 2.8                            |                                      |
| KEG RIVER QQ                      | 238.0                          | <0.16    |          | 36.2                           |                                | 36.2                           | 36.2                           |                                      |
| KEG RIVER RR                      | 270.0                          | <0.08    |          | 90.4                           |                                | 90.4                           | 90.4                           |                                      |
| KEG RIVER SS                      | 155.0                          | 0.30     |          | 46.6                           |                                | 46.6                           | 30.4                           | 16.2                                 |
| KEG RIVER TT                      | 191.0                          | <0.13    |          | 23.1                           |                                | 23.1                           | 23.1                           |                                      |
| KEG RIVER UU                      | 152.0                          | <0.01    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| KEG RIVER VV                      | 464.0                          | 0.40     |          | 186.0                          |                                | 186.0                          | 144.0                          | 42.0                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 9    | 53.00                       | 0.070    | 0.17          | 0.87      | 35                             | 865               | 68   | 14 400              | 1 467.9                    | 1968         | 76 08                          |
| 19   | 20.82                       | 0.130    | 0.15          | 0.78      | 85                             | 839               | 74   | 15 170              | 1 515.2                    | 1968         | 69 04                          |
| 14   | 17.70                       | 0.045    | 0.20          | 0.81      | 74                             | 849               | 71   | 14 240              | 1 478.0                    | 1968         | 85 12                          |
| 8    | 32.63                       | 0.080    | 0.11          | 0.86      | 45                             | 865               | 76   | 14 730              | 1 496.0                    | 1968         | 85 08 - GPP                    |
| 4    | 19.05                       | 0.100    | 0.10          | 0.86      | 46                             | 870               | 71   | 12 440              | 1 472.2                    | 1969         | 80 12 - SUSP 80 09             |
| 11   | 26.45                       | 0.090    | 0.17          | 0.88      | 39                             | 881               | 67   | 13 860              | 1 475.2                    | 1969         | 81 10 - GPP                    |
| 16   | 44.20                       | 0.050    | 0.20          | 0.74      | 88                             | 829               | 72   | 14 670              | 1 541.4                    | 1970         | 71 06                          |
| 49   | 12.71                       | 0.046    | 0.30          | 0.88      | 35                             | 881               | 65   | 13 580              | 1 439.8                    | 1971         | 82 12                          |
| 65   | 20.12                       | 0.051    | 0.17          | 0.80      | 80                             | 849               | 71   | 14 890              | 1 500.5                    | 1971         | 73 02 - SUSP 72 03             |
| 13   | 17.98                       | 0.089    | 0.11          | 0.86      | 53                             | 870               | 70   | 11 960              | 1 481.6                    | 1971         | 73 12 - GPP                    |
| 65   | 12.50                       | 0.040    | 0.35          | 0.82      | 106                            | 834               | 73   | 12 590              | 1 486.5                    | 1973         | 83 12 - SUSP 82 05             |
| 64   | 19.80                       | 0.055    | 0.15          | 0.78      | 89                             | 850               | 71   | 16 930              | 1 505.4                    | 1969         | 80 06 - GPP                    |
| 64   | 27.90                       | 0.080    | 0.25          | 0.88      | 39                             | 882               | 67   | 13 301              | 1 495.0                    | 1983         | 85 12 - SUSP 84 03             |
| 64   | 11.00                       | 0.120    | 0.11          | 0.80      | 45                             |                   | 62   | 14 491              | 1 546.5                    | 1983         | 85 12 - SUSP 85 04             |
| 64   | 5.80                        | 0.060    | 0.24          | 0.85      | 54                             | 876               | 58   | 14 358              | 1 461.3                    | 1983         | 84 08                          |
| 49   | 16.70                       | 0.076    | 0.17          | 0.83      | 75                             | 829               | 62   | 15 790              | 1 596.5                    | 1968         | 84 12 - GPP                    |
| 64   | 7.00                        | 0.080    | 0.40          | 0.86      | 34                             | 794               | 82   | 13 677              | 1 647.5                    | 1981         | 82 10                          |
| 10   | 41.03                       | 0.080    | 0.15          | 0.76      | 106                            | 825               | 68   | 15 170              | 1 545.0                    | 1968         | 70 02 - GPP                    |
| 14   | 38.93                       | 0.094    | 0.11          | 0.87      | 43                             | 849               | 71   | 14 670              | 1 466.7                    | 1968         | 85 01 - GPP                    |
| 8    | 35.30                       | 0.068    | 0.16          | 0.90      | 32                             | 876               | 64   | 14 560              | 1 460.6                    | 1968         | 71 03                          |
| 12   | 66.96                       | 0.090    | 0.10          | 0.85      | 48                             | 860               | 73   | 15 000              | 1 493.5                    | 1968         | 78 01 - SUSP 77 11             |
| 13   | 68.75                       | 0.094    | 0.10          | 0.82      | 75                             | 849               | 68   | 15 200              | 1 513.0                    | 1967         | 85 09                          |
| 5    | 37.80                       | 0.130    | 0.08          | 0.69      | 143                            | 876               | 76   | 15 130              | 1 531.0                    | 1968         | 79 04 - SUSP 79 02             |
| 10   | 88.09                       | 0.077    | 0.16          | 0.80      | 74                             | 839               | 76   | 16 030              | 1 592.0                    | 1968         | 83 12 - GPP                    |
| 13   | 70.46                       | 0.093    | 0.10          | 0.83      | 65                             | 876               | 77   | 15 270              | 1 499.0                    | 1968         | 85 08 - GPP                    |
| 12   | 44.50                       | 0.090    | 0.10          | 0.83      | 78                             | 849               | 71   | 14 990              | 1 495.0                    | 1968         | 83 12 - I.S. NO. 6             |
| 11   | 36.45                       | 0.053    | 0.14          | 0.87      | 50                             | 865               | 68   | 14 460              | 1 462.1                    | 1968         | 81 10                          |
| 7    | 58.14                       | 0.065    | 0.12          | 0.85      | 45                             | 855               | 70   | 14 930              | 1 499.3                    | 1968         | 81 12                          |
| 19   | 28.96                       | 0.078    | 0.12          | 0.73      | 121                            | 815               | 78   | 15 070              | 1 535.9                    | 1968         | 83 12 - SUSP 81 10             |
| 6    | 47.40                       | 0.073    | 0.12          | 0.87      | 50                             | 865               | 68   | 14 550              | 1 474.6                    | 1968         | 82 12                          |
| 6    | 52.50                       | 0.066    | 0.12          | 0.87      | 43                             | 865               | 61   | 14 400              | 1 467.0                    | 1968         | 81 10                          |
| 8    | 74.75                       | 0.081    | 0.14          | 0.84      | 45                             | 860               | 76   | 14 960              | 1 503.6                    | 1968         | 85 05                          |
| 15   | 62.00                       | 0.071    | 0.14          | 0.84      | 58                             | 855               | 72   | 14 980              | 1 504.2                    | 1968         | 83 12 - SUSP 80 01             |
| 8    | 56.69                       | 0.100    | 0.10          | 0.81      | 80                             | 876               | 63   | 15 090              | 1 504.2                    | 1968         | 75 01 - I.S. NO. 6             |
| 6    | 73.52                       | 0.077    | 0.10          | 0.82      | 60                             | 855               | 71   | 12 770              | 1 530.4                    | 1968         | 82 12 - GPP                    |
| 22   | 42.70                       | 0.080    | 0.15          | 0.82      | 69                             | 849               | 71   | 14 340              | 1 494.7                    | 1968         | 82 12 - GPP                    |
| 19   | 30.75                       | 0.100    | 0.11          | 0.75      | 107                            | 829               | 71   | 15 470              | 1 551.7                    | 1968         | 75 02 - SUSP 73 08             |
| 7    | 37.50                       | 0.110    | 0.10          | 0.75      | 101                            | 839               | 72   | 15 170              | 1 527.7                    | 1968         | 83 12                          |
| 11   | 73.15                       | 0.120    | 0.09          | 0.82      | 68                             | 849               | 71   | 15 280              | 1 515.8                    | 1968         | 76 05 - SUSP 85 02             |
| 6    | 66.45                       | 0.093    | 0.12          | 0.77      | 96                             | 839               | 72   | 15 370              | 1 538.0                    | 1968         | 77 03 - SUSP 75 12             |
| 19   | 34.37                       | 0.055    | 0.20          | 0.87      | 47                             | 849               | 69   | 14 740              | 1 478.0                    | 1968         | 84 12                          |
| 10   | 50.60                       | 0.084    | 0.10          | 0.81      | 75                             | 860               | 64   | 14 780              | 1 489.6                    | 1968         | 71 09 - I.S. NO. 6             |
| 25   | 47.24                       | 0.073    | 0.24          | 0.87      | 45                             | 849               | 72   | 14 860              | 1 486.8                    | 1968         | 82 12 - GPP                    |
| 10   | 43.30                       | 0.060    | 0.16          | 0.88      | 35                             | 855               | 67   | 14 650              | 1 467.6                    | 1968         | 83 12                          |
| 7    | 27.10                       | 0.025    | 0.30          | 0.89      | 30                             | 860               | 68   | 14 450              | 1 447.2                    | 1968         | 80 06 - SUSP 85 04             |
| 11   | 32.61                       | 0.074    | 0.13          | 0.83      | 57                             | 849               | 69   | 14 450              | 1 481.0                    | 1968         | 70 07 - GPP - IS NO 5          |
| 10   | 21.56                       | 0.090    | 0.15          | 0.77      | 101                            | 839               | 71   | 15 310              | 1 529.5                    | 1968         | 69 11 - GPP                    |
| 34   | 39.51                       | 0.070    | 0.11          | 0.76      | 104                            | 820               | 70   | 15 380              | 1 544.7                    | 1968         | 85 03 - GPP                    |
| 51   | 28.55                       | 0.069    | 0.14          | 0.73      | 120                            | 829               | 74   | 15 040              | 1 541.7                    | 1968         | 83 12                          |
| 13   | 20.92                       | 0.130    | 0.11          | 0.68      | 158                            | 815               | 79   | 15 450              | 1 570.3                    | 1968         | 83 12                          |
| 9    | 68.00                       | 0.085    | 0.20          | 0.88      | 46                             | 876               | 63   | 14 690              | 1 482.9                    | 1968         | 83 12                          |
| 19   | 50.11                       | 0.081    | 0.16          | 0.84      | 53                             | 870               | 69   | 14 740              | 1 475.8                    | 1968         | 70 02 - GPP                    |
| 17   | 36.82                       | 0.080    | 0.15          | 0.73      | 124                            | 834               | 69   | 15 290              | 1 554.2                    | 1968         | 78 10 - SUSP 77 10             |
| 10   | 17.98                       | 0.079    | 0.19          | 0.80      | 74                             | 844               | 70   | 15 620              | 1 632.2                    | 1968         | 75 12                          |
| 4    | 47.25                       | 0.110    | 0.09          | 0.84      | 56                             | 870               | 62   | 14 580              | 1 476.1                    | 1968         | 83 12 - SUSP 81 12             |
| 9    | 33.78                       | 0.070    | 0.13          | 0.86      | 50                             | 865               | 68   | 14 160              | 1 464.3                    | 1968         | 82 12 - SUSP 84 07             |
| 6    | 17.25                       | 0.067    | 0.20          | 0.85      | 72                             | 844               | 71   | 13 620              | 1 492.9                    | 1969         | 70 02 - SUSP 73 03             |
| 19   | 26.16                       | 0.082    | 0.20          | 0.73      | 118                            | 839               | 72   | 15 452              | 1 545.3                    | 1969         | 78 07 - SUSP 83 09             |
| 57   | 39.32                       | 0.076    | 0.12          | 0.85      | 43                             | 860               | 69   | 14 820              | 1 481.3                    | 1969         | 84 12 - SUSP 84 01             |
| 19   | 32.40                       | 0.040    | 0.25          | 0.84      | 58                             | 876               | 66   | 14 620              | 1 474.3                    | 1969         | 70 06                          |
| 9    | 38.25                       | 0.083    | 0.10          | 0.75      | 107                            | 834               | 71   | 15 360              | 1 549.0                    | 1969         | 77 05 - SUSP 77 02             |
| 34   | 18.04                       | 0.040    | 0.25          | 0.82      | 69                             | 849               | 71   | 13 570              | 1 484.0                    | 1969         | 81 12 - GPP                    |
| 13   | 63.98                       | 0.081    | 0.15          | 0.84      | 65                             | 860               | 70   | 14 618              | 1 483.8                    | 1969         | 85 08                          |

TABLE 2-4

| FIELD<br>POOL                         | 1<br><br>INITIAL<br>VOLUME<br>IN PLACE<br><br>103m3 | 3<br><br>RECOVERY   |                      | 5<br><br>INITIAL ESTABLISHED RESERVES |                       |                    | 7<br><br>CUMULATIVE<br>PRODUCTION<br><br>103m3 | 8<br><br>REMAINING<br>ESTABLISHED<br>RESERVES<br><br>103m3 |
|---------------------------------------|---|---------------------|----------------------|---------------------------------------|-----------------------|--------------------|--|--|
|                                       |   | PRIMARY<br><br>frac | ENHANCED<br><br>frac | PRIMARY<br><br>103m3                  | ENHANCED<br><br>103m3 | TOTAL<br><br>103m3 |  |  |
|                                       |   |                     |                      |                                       |                       |                    |  |  |
| <b>VIRGO 115-06W6<br/>(CONTINUED)</b> |   |                     |                      |                                       |                       |                    |  |  |
| KEG RIVER WW<br>WATER FLOOD           | 483.0   | 0.20                | 0.10                 | 96.6                                  | 48.3                  | 145.0              | 93.9   | 51.1   |
| KEG RIVER XX                          | 578.0   | <0.09               |                      | 47.4                                  |                       | 47.4               | 47.4   |  |
| KEG RIVER YY                          | 200.0   | 0.40                |                      | 80.0                                  |                       | 80.0               | 50.6   | 29.4   |
| KEG RIVER ZZ                          | 238.0   | 0.10                |                      | 23.8                                  |                       | 23.8               | 23.7   | 0.1  |
| KEG RIVER AAA<br>WATER FLOOD          | 230.0   | 0.35                | 0.13                 | 80.5                                  | 29.9                  | 110.0              | 96.4   | 13.6   |
| KEG RIVER BBB                         | 445.0   | <0.18               |                      | 79.9                                  |                       | 79.9               | 79.9   |  |
| KEG RIVER CCC TOTAL                   | 250.0   |                     |                      | 20.0                                  | 21.3                  | 41.3               | 16.6   | 24.7   |
| PRIMARY AREA                          | 125.0   | 0.08                |                      | 10.0                                  |                       | 10.0               |  |  |
| WATER FLOOD AREA                      | 125.0   | 0.08                | 0.17                 | 10.0                                  | 21.3                  | 31.3               |  |  |
| KEG RIVER DDD                         | 191.0   | 0.07                |                      | 13.4                                  |                       | 13.4               | 13.4   |  |
| KEG RIVER EEE                         | 238.0   | <0.10               |                      | 22.3                                  |                       | 22.3               | 22.3   |  |
| KEG RIVER FFF                         | 292.0   | <0.01               |                      | 0.3                                   |                       | 0.3                | 0.3  |  |
| KEG RIVER GGG<br>WATER FLOOD          | 509.0   | 0.10                | 0.08                 | 50.9                                  | 40.7                  | 91.6               | 77.8   | 13.8   |
| KEG RIVER HHH                         | 49.6  | 0.20                |                      | 9.9                                   |                       | 9.9                | 5.7  | 4.2  |
| KEG RIVER III                         | 47.7  | <0.05               |                      | 2.1                                   |                       | 2.1                | 2.1  |  |
| KEG RIVER JJJ                         | 556.0   | <0.05               |                      | 24.7                                  |                       | 24.7               | 24.7   |  |
| KEG RIVER KKK                         | 238.0   | 0.35                |                      | 83.3                                  |                       | 83.3               | 69.5   | 13.8   |
| KEG RIVER LLL                         | 207.0   | 0.30                |                      | 62.0                                  |                       | 62.0               | 41.8   | 20.2   |
| KEG RIVER MMM                         | 95.3  | 0.35                |                      | 33.4                                  |                       | 33.4               | 31.9   | 1.5  |
| KEG RIVER NNN                         | 207.0   | 0.30                |                      | 62.0                                  |                       | 62.0               | 49.6   | 12.4   |
| KEG RIVER OOO<br>WATER FLOOD          | 404.0   | 0.10                | 0.01                 | 40.4                                  | 4.0                   | 44.4               | 44.4   |  |
| KEG RIVER PPP<br>WATER FLOOD          | 227.0   | 0.15                | 0.10                 | 34.2                                  | 22.7                  | 56.9               | 53.6   | 3.3  |
| KEG RIVER QOO                         | 320.0   | <0.16               |                      | 49.0                                  |                       | 49.0               | 49.0   |  |
| KEG RIVER RRR                         | 556.0   | <0.07               |                      | 35.9                                  |                       | 35.9               | 35.9   |  |
| KEG RIVER SSS                         | 238.0   | 0.05                |                      | 11.9                                  |                       | 11.9               | 2.9  | 9.0  |
| KEG RIVER TTT                         | 444.0   | 0.26                |                      | 115.0                                 | ERSO                  | 115.0              | 110.4  | 4.6  |
| KEG RIVER UUU                         | 111.0   | 0.20                |                      | 22.2                                  |                       | 22.2               | 22.2   |  |
| KEG RIVER VVV                         | 37.8  | 0.30                |                      | 11.3                                  |                       | 11.3               | 2.7  | 8.6  |
| KEG RIVER WWW                         | 111.0   | <0.10               |                      | 10.5                                  |                       | 10.5               | 10.5   |  |
| KEG RIVER XXX                         | 267.0   | 0.20                |                      | 53.4                                  |                       | 53.4               | 38.6   | 14.8   |
| KEG RIVER YYY                         | 175.0   | 0.36                |                      | 62.9                                  |                       | 62.9               | 41.4   | 21.5   |
| KEG RIVER ZZZ                         | 195.0   | 0.30                |                      | 58.6                                  |                       | 58.6               | 50.5   | 8.1  |
| KEG RIVER A2A                         | 318.0   | 0.30                |                      | 95.3                                  |                       | 95.3               | 89.6   | 5.7  |
| KEG RIVER B2B                         | 331.0   | <0.06               |                      | 17.5                                  |                       | 17.5               | 17.5   |  |
| KEG RIVER C2C                         | 397.0   | <0.08               |                      | 31.0                                  |                       | 31.0               | 31.0   |  |
| KEG RIVER D2D                         | 370.0   | 0.25                |                      | 92.5                                  | ERSO                  | 92.5               | 87.8   | 4.7  |
| KEG RIVER E2E                         | 238.0   | <0.06               |                      | 13.2                                  |                       | 13.2               | 13.2   |  |
| KEG RIVER F2F                         | 139.0   | 0.15                |                      | 20.8                                  | ERSO                  | 20.8               | 17.6   | 3.2  |
| KEG RIVER G2G                         | 79.5  | <0.01               |                      | 0.7                                   |                       | 0.7                | 0.7  |  |
| KEG RIVER H2H                         | 477.0   | 0.10                |                      | 47.7                                  | ERSO                  | 47.7               | 37.2   | 10.5   |
| KEG RIVER I2I                         | 180.0   | 0.35                |                      | 63.0                                  |                       | 63.0               | 52.8   | 10.2   |
| KEG RIVER J2J                         | 56.3  | 0.06                |                      | 3.4                                   |                       | 3.4                | 3.4  |  |
| KEG RIVER K2K                         | 636.0   | 0.17                |                      | 108.0                                 |                       | 108.0              | 97.9   | 10.1   |
| KEG RIVER L2L                         | 253.0   | 0.17                |                      | 43.0                                  |                       | 43.0               | 33.9   | 9.1  |
| KEG RIVER M2M                         | 259.0   | 0.15                |                      | 38.9                                  |                       | 38.9               | 26.2   | 12.7   |
| KEG RIVER N2N                         | 348.0   | 0.16                |                      | 55.7                                  |                       | 55.7               | 53.6   | 2.1  |
| KEG RIVER O2O                         | 238.0   | <0.08               |                      | 18.8                                  |                       | 18.8               | 18.8   |  |
| KEG RIVER P2P                         | 191.0   | <0.02               |                      | 3.6                                   |                       | 3.6                | 3.6  |  |
| KEG RIVER Q2Q                         | 74.8  | 0.36                |                      | 27.0                                  | ERSO                  | 27.0               | 1.9  | 25.1   |
| KEG RIVER R2R<br>WATER FLOOD          | 397.0   | 0.07                | 0.08                 | 27.8                                  | 31.8                  | 59.6               | 46.6   | 13.0   |
| KEG RIVER S2S                         | 270.0   | 0.40                |                      | 108.0                                 |                       | 108.0              | 61.8   | 46.2   |
| KEG RIVER T2T                         | 203.0   | 0.30                |                      | 61.0                                  |                       | 61.0               | 41.3   | 19.7   |
| KEG RIVER U2U                         | 421.0   | 0.11                |                      | 46.3                                  |                       | 46.3               | 40.8   | 5.5  |
| KEG RIVER V2V                         | 101.0   | 0.35                |                      | 35.4                                  |                       | 35.4               | 18.2   | 17.2   |
| KEG RIVER W2W                         | 636.0   | 0.08                |                      | 50.9                                  |                       | 50.9               | 45.0   | 5.9  |
| KEG RIVER X2X                         | 397.0   | 0.15                |                      | 59.6                                  |                       | 59.6               | 52.5   | 7.1  |
| KEG RIVER Y2Y                         | 747.0   | 0.15                |                      | 112.0                                 |                       | 112.0              | 75.8   | 36.2   |
| KEG RIVER Z2Z                         | 305.0   | <0.03               |                      | 6.2                                   |                       | 6.2                | 6.2  |  |
| KEG RIVER A3A                         | 254.0   | 0.35                |                      | 89.0                                  |                       | 89.0               | 71.8   | 17.2   |
| KEG RIVER B3B                         | 477.0   | 0.08                |                      | 38.0                                  |                       | 38.0               | 33.2   | 4.8  |
| KEG RIVER C3C                         | 159.0   | <0.20               |                      | 30.9                                  |                       | 30.9               | 30.9   |  |
| KEG RIVER D3D                         | 111.0   | 0.35                |                      | 38.9                                  |                       | 38.9               | 29.0   | 9.9  |
| KEG RIVER E3E                         | 556.0   | 0.20                |                      | 111.0                                 |                       | 111.0              | 48.9   | 62.1   |
| KEG RIVER F3F                         | 404.0   | 0.03                |                      | 12.1                                  |                       | 12.1               | 9.6  | 2.5  |
| KEG RIVER G3G                         | 310.0   | <0.03               |                      | 6.6                                   |                       | 6.6                | 6.6  |  |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 10   | 65.53                       | 0.098    | 0.09          | 0.84      | 64                             | 860               | 70   | 14 740              | 1 501.1                    | 1969         | 82 12 - GPP - IS NO 5          |
| 17   | 33.89                       | 0.140    | 0.08          | 0.78      | 92                             | 829               | 76   | 15 380              | 1 553.0                    | 1969         | 77 11 - ABAND 76 11            |
| 6    | 56.70                       | 0.094    | 0.12          | 0.77      | 91                             | 834               | 76   | 15 130              | 1 547.5                    | 1969         | 81 10 - SUSP 83 03             |
| 15   | 27.77                       | 0.080    | 0.20          | 0.88      | 40                             | 855               | 70   | 14 480              | 1 467.3                    | 1969         | 75 12 - GPP                    |
| 11   | 44.00                       | 0.070    | 0.15          | 0.80      | 84                             | 839               | 71   | 14 960              | 1 494.4                    | 1968         | 83 12 - IS NO 6                |
| 8    | 65.23                       | 0.120    | 0.10          | 0.78      | 93                             | 834               | 72   | 15 310              | 1 532.2                    | 1969         | 82 12 - SUSP 80 07             |
| 8    |                             |          |               |           | 47                             | 855               | 71   | 14 406              | 1 504.0                    | 1969         | 85 04                          |
| 4    | 3.40                        | 0.120    | 0.10          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 4    | 70.50                       | 0.060    | 0.12          | 0.84      |                                |                   |      |                     |                            |              |                                |
| 7    | 44.00                       | 0.082    | 0.11          | 0.85      | 50                             | 865               | 68   | 13 220              | 1 469.4                    | 1969         | 83 12 - SUSP 81 12             |
| 5    | 57.24                       | 0.107    | 0.12          | 0.84      | 54                             | 865               | 71   | 12 670              | 1 501.1                    | 1969         | 70 10 - SUSP 72 07             |
| 65   | 6.40                        | 0.100    | 0.15          | 0.83      | 69                             | 849               | 71   | 13 340              | 1 482.5                    | 1969         | 70 12 - SUSP 70 01             |
| 11   | 59.30                       | 0.102    | 0.10          | 0.85      | 53                             | 865               | 70   | 13 970              | 1 495.3                    | 1969         | 81 12 - GPP                    |
| 8    | 24.78                       | 0.037    | 0.24          | 0.89      | 40                             | 860               | 68   | 13 930              | 1 442.9                    | 1969         | 84 06 - GPP                    |
| 8    | 15.54                       | 0.064    | 0.24          | 0.82      | 71                             | 839               | 71   | 13 510              | 1 498.4                    | 1969         | 74 05 - ABAND 70 11            |
| 21   | 40.39                       | 0.094    | 0.15          | 0.82      | 62                             | 865               | 72   | 14 250              | 1 529.5                    | 1969         | 79 12 - SUSP 83 08             |
| 7    | 47.89                       | 0.094    | 0.09          | 0.83      | 67                             | 849               | 71   | 14 600              | 1 504.8                    | 1969         | 83 12                          |
| 14   | 39.32                       | 0.053    | 0.20          | 0.90      | 30                             | 870               | 68   | 14 280              | 1 460.3                    | 1969         | 70 07 - GPP                    |
| 14   | 24.54                       | 0.040    | 0.22          | 0.88      | 46                             | 855               | 71   | 14 380              | 1 476.5                    | 1969         | 70 07 - GPP                    |
| 22   | 27.01                       | 0.050    | 0.20          | 0.86      | 44                             | 870               | 68   | 14 310              | 1 463.3                    | 1969         | 70 03                          |
| 8    | 82.91                       | 0.080    | 0.10          | 0.84      | 59                             | 844               | 66   | 11 660              | 1 506.0                    | 1969         | 83 12 - SUSP 79 12             |
| 11   | 60.96                       | 0.047    | 0.14          | 0.84      | 60                             | 855               | 68   | 13 810              | 1 498.1                    | 1969         | 76 12 - GPP - IS NO 5          |
| 18   | 45.80                       | 0.072    | 0.13          | 0.62      | 210                            | 820               | 78   | 15 530              | 1 586.2                    | 1969         | 83 12 - SUSP 82 02             |
| 15   | 65.00                       | 0.096    | 0.11          | 0.65      | 171                            | 815               | 78   | 15 180              | 1 570.9                    | 1969         | 83 12 - SUSP 81 06             |
| 6    | 72.92                       | 0.080    | 0.20          | 0.85      | 52                             | 870               | 71   | 13 910              | 1 524.0                    | 1969         | 81 12 - SUSP 82 08             |
| 11   | 60.27                       | 0.095    | 0.13          | 0.81      | 71                             | 855               | 74   | 15 220              | 1 534.7                    | 1969         | 85 11 - GPP                    |
| 8    | 37.88                       | 0.069    | 0.17          | 0.64      | 192                            | 811               | 82   | 15 470              | 1 595.6                    | 1969         | 85 12 - SUSP 82 01             |
| 5    | 26.52                       | 0.044    | 0.21          | 0.82      | 66                             | 876               | 75   | 13 210              | 1 511.5                    | 1969         | 75 12                          |
| 7    | 21.34                       | 0.110    | 0.12          | 0.74      | 118                            | 829               | 71   | 14 800              | 1 539.9                    | 1969         | 75 12 - SUSP 75 06             |
| 152  | 30.48                       | 0.075    | 0.15          | 0.85      | 30                             | 865               | 68   | 14 460              | 1 455.1                    | 1969         | 79 12 - GPP                    |
| 16   | 30.80                       | 0.069    | 0.15          | 0.73      | 123                            | 829               | 72   | 15 240              | 1 540.8                    | 1969         | 71 09 - GPP                    |
| 22   | 33.38                       | 0.047    | 0.30          | 0.80      | 64                             | 849               | 70   | 13 850              | 1 477.7                    | 1969         | 70 06                          |
| 6    | 77.11                       | 0.100    | 0.09          | 0.80      | 84                             | 844               | 76   | 15 100              | 1 534.4                    | 1969         | 70 08 - SUSP 84 01             |
| 20   | 26.49                       | 0.090    | 0.23          | 0.89      | 34                             | 870               | 70   | 13 560              | 1 456.6                    | 1969         | 75 12 - SUSP 75 02             |
| 10   | 48.83                       | 0.105    | 0.11          | 0.87      | 41                             | 881               | 64   | 13 130              | 1 464.6                    | 1969         | 80 01 - SUSP 83 09             |
| 9    | 76.78                       | 0.077    | 0.12          | 0.79      | 77                             | 844               | 73   | 14 730              | 1 531.6                    | 1969         | 85 11 - GPP                    |
| 12   | 33.89                       | 0.079    | 0.15          | 0.86      | 48                             | 870               | 69   | 11 190              | 1 490.8                    | 1969         | 73 02 - SUSP 72 12             |
| 11   | 24.08                       | 0.085    | 0.17          | 0.76      | 104                            | 834               | 73   | 15 130              | 1 520.0                    | 1969         | 70 06 - GPP - IS NO 7          |
| 11   | 28.65                       | 0.045    | 0.32          | 0.83      | 62                             | 849               | 71   | 14 500              | 1 497.5                    | 1969         | 73 02 - SUSP 71 07             |
| 17   | 40.54                       | 0.103    | 0.12          | 0.78      | 90                             | 849               | 71   | 14 710              | 1 510.0                    | 1969         | 82 12 - GPP - IS NO 7          |
| 10   | 34.74                       | 0.070    | 0.15          | 0.87      | 43                             | 860               | 70   | 14 130              | 1 467.6                    | 1970         | 83 12                          |
| 11   | 29.19                       | 0.039    | 0.23          | 0.69      | 125                            | 815               | 82   | 15 480              | 1 606.0                    | 1970         | 79 01 - SUSP 80 07             |
| 9    | 78.15                       | 0.114    | 0.08          | 0.83      | 63                             | 849               | 70   | 11 050              | 1 521.6                    | 1970         | 82 12 - GPP                    |
| 11   | 43.56                       | 0.070    | 0.17          | 0.88      | 37                             | 865               | 68   | 13 720              | 1 471.0                    | 1970         | 82 12 - GPP                    |
| 23   | 27.22                       | 0.061    | 0.20          | 0.86      | 45                             | 834               | 72   | 13 880              | 1 474.6                    | 1970         | 85 12                          |
| 15   | 36.09                       | 0.085    | 0.10          | 0.82      | 70                             | 849               | 73   | 13 360              | 1 501.4                    | 1970         | 83 12 - GPP                    |
| 12   | 44.35                       | 0.061    | 0.20          | 0.88      | 38                             | 855               | 68   | 14 370              | 1 457.6                    | 1970         | 82 12 - SUSP 84 05             |
| 13   | 33.83                       | 0.075    | 0.20          | 0.75      | 92                             | 829               | 76   | 14 930              | 1 563.6                    | 1970         | 75 03 - SUSP 75 03             |
| 8    | 30.48                       | 0.050    | 0.20          | 0.80      | 90                             | 849               | 72   | 13 890              | 1 524.6                    | 1970         | 73 02 - GPP - IS NO 7          |
| 16   | 46.02                       | 0.075    | 0.10          | 0.82      | 68                             | 860               | 70   | 11 400              | 1 491.8                    | 1970         | 75 12 - GPP                    |
| 13   | 40.93                       | 0.075    | 0.10          | 0.78      | 90                             | 839               | 72   | 14 040              | 1 513.9                    | 1970         | 71 09 - GPP                    |
| 6    | 50.66                       | 0.085    | 0.10          | 0.81      | 53                             | 849               | 79   | 12 600              | 1 500.2                    | 1971         | 75 12 - GPP                    |
| 10   | 48.77                       | 0.120    | 0.10          | 0.80      | 76                             | 849               | 73   | 12 450              | 1 523.1                    | 1971         | 84 12                          |
| 11   | 48.89                       | 0.030    | 0.23          | 0.82      | 80                             | 849               | 73   | 14 530              | 1 508.5                    | 1971         | 72 07 - GPP                    |
| 13   | 91.74                       | 0.073    | 0.10          | 0.84      | 89                             | 865               | 70   | 10 450              | 1 512.4                    | 1971         | 81 12 - GPP                    |
| 11   | 49.07                       | 0.105    | 0.18          | 0.86      | 53                             | 865               | 70   | 10 640              | 1 476.5                    | 1972         | 83 12 - GPP                    |
| 11   | 72.40                       | 0.120    | 0.07          | 0.84      | 57                             | 855               | 69   | 12 500              | 1 495.3                    | 1972         | 84 07                          |
| 17   | 37.12                       | 0.067    | 0.15          | 0.87      | 41                             | 870               | 57   | 10 410              | 1 488.9                    | 1972         | 75 12 - SUSP 75 03             |
| 12   | 45.72                       | 0.070    | 0.15          | 0.77      | 89                             | 829               | 81   | 15 240              | 1 531.9                    | 1972         | 73 05                          |
| 10   | 54.86                       | 0.120    | 0.10          | 0.83      | 51                             | 865               | 72   | 14 360              | 1 496.3                    | 1972         | 85 12 - GPP                    |
| 7    | 32.80                       | 0.090    | 0.10          | 0.87      | 53                             | 870               | 69   | 14 880              | 1 467.9                    | 1973         | 82 12 - SUSP 81 12             |
| 5    | 31.18                       | 0.095    | 0.18          | 0.87      | 33                             | 876               | 65   | 13 810              | 1 449.6                    | 1973         | 74 05 - SUSP 84 07             |
| 9    | 55.17                       | 0.136    | 0.10          | 0.87      | 43                             | 870               | 62   | 14 270              | 1 471.6                    | 1973         | 77 06 - GPP                    |
| 39   | 15.88                       | 0.100    | 0.23          | 0.85      | 59                             | 855               | 67   | 14 040              | 1 473.1                    | 1973         | 79 12 - GPP                    |
| 29   | 21.46                       | 0.072    | 0.18          | 0.85      | 57                             | 855               | 69   | 12 580              | 1 481.3                    | 1973         | 78 03 - SUSP 78 02             |

TABLE 2-4

| FIELD<br>POOL                         | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                       | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                       |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                       | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>VIRGO 115-06W6<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER H3H                         | 96.9                           | 0.35     |          | 33.9                           |                                | 33.9                           | 7.0                            | 26.9                                 |
| KEG RIVER I3I                         | 248.0                          | 0.05     |          | 12.4                           |                                | 12.4                           | 4.3                            | 8.1                                  |
| KEG RIVER J3J                         | 397.0                          | 0.15     |          | 59.6                           |                                | 59.6                           | 54.7                           | 4.9                                  |
| KEG RIVER L3L                         | 65.3                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| KEG RIVER N3N                         | 353.0                          | 0.25     |          | 88.3                           |                                | 88.3                           | 20.0                           | 68.3                                 |
| KEG RIVER O3O                         | 74.3                           | 0.30     |          | 22.3                           |                                | 22.3                           | 6.8                            | 15.5                                 |
| KEG RIVER P3P                         | 384.0                          | 0.25     |          | 96.0                           |                                | 96.0                           | 0.3                            | 95.7                                 |
| KEG RIVER Q3Q                         | 327.0                          | 0.30     |          | 98.1                           |                                | 98.1                           | 18.2                           | 79.9                                 |
| KEG RIVER S3S                         | 91.6                           | 0.10     |          | 9.2                            |                                | 9.2                            | 2.6                            | 6.6                                  |
| KEG RIVER T3T                         | 110.0                          | 0.25     |          | 27.5                           |                                | 27.5                           | 2.3                            | 25.2                                 |
| KEG RIVER U3U                         | 130.0                          | 0.40     |          | 52.0                           |                                | 52.0                           | 9.7                            | 42.3                                 |
| KEG RIVER V3V                         | 2 850.0                        | 0.20     |          | 570.0                          |                                | 570.0                          | 9.8                            | 560.2                                |
| KEG RIVER W3W                         | 115.0                          | 0.25     |          | 28.8                           |                                | 28.8                           | 0.4                            | 28.4                                 |
| KEG RIVER Y3Y                         | 362.0                          | 0.25     |          | 90.5                           |                                | 90.5                           | 1.0                            | 89.5                                 |
| <b>WANYANDIE 060-27W5</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                             | 242.0                          | 0.10     |          | 24.2                           |                                | 24.2                           | 4.7                            | 19.5                                 |
| CARDIUM B                             | 424.0                          | 0.10     |          | 42.4                           |                                | 42.4                           | 0.1                            | 42.3                                 |
| CARDIUM C                             | 397.0                          | 0.05     |          | 19.9                           |                                | 19.9                           | 1.3                            | 18.6                                 |
| <b>WAPITI 067-06W6</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| CARDIUM A                             | 13 600.0                       | 0.10     |          | 1 360.0                        |                                | 1 360.0                        | 35.7                           | 1 324.3                              |
| <b>WASKAHIGAN 064-23W5</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| DUNVEGAN A                            | 3 000.0                        | 0.05     |          | 150.0                          |                                | 150.0                          | 77.5                           | 72.5                                 |
| DUNVEGAN C                            | 520.0                          | 0.05     |          | 26.0                           |                                | 26.0                           | 10.2                           | 15.8                                 |
| <b>WATELET 047-26W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER B                         | 281.0                          | 0.01     |          | 2.8                            |                                | 2.8                            | 1.6                            | 1.2                                  |
| ELLERSLIE A                           | 320.0                          | 0.15     |          | 48.0                           |                                | 48.0                           | 35.0                           | 13.0                                 |
| <b>WATTS 031-16W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                     | 139.0                          | 0.10     |          | 13.9                           |                                | 13.9                           | 4.0                            | 9.9                                  |
| LOWER MANNVILLE B                     | 167.0                          | 0.10     |          | 16.7                           |                                | 16.7                           | 2.4                            | 14.3                                 |
| BANFF A                               | 282.0                          | 0.05     |          | 14.1                           |                                | 14.1                           | 7.3                            | 6.8                                  |
| BANFF B                               | 431.0                          | 0.10     |          | 43.1                           |                                | 43.1                           | 6.4                            | 36.7                                 |
| BANFF C                               | 203.0                          | 0.10     |          | 20.3                           |                                | 20.3                           | 2.5                            | 17.8                                 |
| BANFF D                               | 829.0                          | 0.10     |          | 82.9                           |                                | 82.9                           | 5.2                            | 77.7                                 |
| <b>WAYNE-ROSEDALE<br/>027-20W4</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING H                              | 73.6                           | 0.10     |          | 7.3                            |                                | 7.3                            | 5.1                            | 2.2                                  |
| VIKING M                              | 107.0                          | 0.10     |          | 10.6                           |                                | 10.6                           | 4.1                            | 6.5                                  |
| UPPER MANNVILLE E                     | 351.0                          | 0.01     |          | 3.5                            |                                | 3.5                            | 1.3                            | 2.2                                  |
| GLAUCONITIC F                         | 159.0                          | 0.01     |          | 1.6                            |                                | 1.6                            | 0.8                            | 0.8                                  |
| GLAUCONITIC L                         | 130.0                          | 0.10     |          | 13.0                           |                                | 13.0                           | 4.3                            | 8.7                                  |
| GLAUCONITIC M                         | 435.0                          | 0.01     |          | 4.4                            |                                | 4.4                            | 1.8                            | 2.6                                  |
| GLAUCONITIC N                         | 213.0                          | 0.01     |          | 2.1                            |                                | 2.1                            | 1.4                            | 0.7                                  |
| OSTRACOD D                            | 78.3                           | 0.10     |          | 7.8                            |                                | 7.8                            | 3.5                            | 4.3                                  |
| OSTRACOD J                            | 69.6                           | 0.10     |          | 7.0                            |                                | 7.0                            | 1.3                            | 5.7                                  |
| BASAL QUARTZ A                        | 159.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BASAL QUARTZ B TOTAL                  | 9 810.0                        |          |          | 801.0                          | 251.0                          | 1 050.0                        | 465.2                          | 584.8                                |
| PRIMARY AREA                          | 6 230.0                        | 0.10     |          | 623.0                          |                                | 623.0                          |                                |                                      |
| WATER FLOOD AREA                      | 3 580.0                        | 0.05     | 0.07     | 178.0                          | 251.0                          | 429.0                          |                                |                                      |
| BASAL QUARTZ E                        | 3 380.0                        | 0.03     |          | 101.0                          |                                | 101.0                          | 54.3                           | 46.7                                 |
| BASAL QUARTZ F                        | 95.3                           | 0.10     |          | 9.5                            |                                | 9.5                            | 9.3                            | 0.2                                  |
| BASAL QUARTZ G                        | 77.5                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BASAL QUARTZ H                        | 157.0                          | <0.02    |          | 2.5                            |                                | 2.5                            | 2.5                            |                                      |
| BASAL QUARTZ O                        | 149.0                          | 0.04     |          | 6.0                            |                                | 6.0                            | 5.1                            | 0.9                                  |
| BASAL QUARTZ U                        | 532.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| BASAL QUARTZ AA                       | 498.0                          | 0.02     |          | 10.0                           |                                | 10.0                           | 1.0                            | 9.0                                  |
| BASAL QUARTZ BB                       | 357.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| BASAL QUARTZ DD                       | 549.0                          | 0.01     |          | 5.5                            |                                | 5.5                            | 2.2                            | 3.3                                  |
| BASAL QUARTZ EE                       | 205.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| BASAL QUARTZ FF                       | 156.0                          | 0.10     |          | 15.6                           |                                | 15.6                           | 0.1                            | 15.5                                 |
| BASAL QUARTZ GG                       | 2 120.0                        | 0.12     |          | 254.0                          |                                | 254.0                          | 59.4                           | 194.6                                |
| BASAL QUARTZ NN                       | 291.0                          | 0.10     |          | 29.1                           |                                | 29.1                           | 0.1                            | 29.0                                 |
| BASAL QUARTZ OO                       | 463.0                          | 0.10     |          | 46.3                           |                                | 46.3                           | 7.4                            | 38.9                                 |
| BASAL QUARTZ PP                       | 441.0                          | 0.10     |          | 44.1                           |                                | 44.1                           | 4.0                            | 40.1                                 |
| BASAL QUARTZ QO                       | 184.0                          | 0.10     |          | 18.4                           |                                | 18.4                           | 3.2                            | 15.2                                 |
| BASAL QUARTZ RR                       | 150.0                          | 0.10     |          | 15.0                           |                                | 15.0                           | 3.8                            | 11.2                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 13    | 22.70                       | 0.050    | 0.18          | 0.80      | 89                             | 839               | 60   | 15 670              | 1 574.0                    | 1974         | 74 12 - GPP                    |
| 32    | 19.51                       | 0.063    | 0.20          | 0.80      | 76                             | 829               | 70   | 15 220              | 1 539.8                    | 1969         | 85 12                          |
| 12    | 54.25                       | 0.090    | 0.20          | 0.84      | 66                             | 849               | 72   | 15 060              | 1 490.5                    | 1977         | 83 12 - GPP                    |
| 8     | 22.60                       | 0.060    | 0.30          | 0.86      | 35                             | 850               | 68   | 6 853               | 1 459.0                    | 1980         | 82 12 - SUSP B1 02             |
| 16    | 42.00                       | 0.072    | 0.12          | 0.83      | 35                             | 852               | 77   | 15 240              | 1 496.0                    | 1981         | 81 09                          |
| 8     | 22.50                       | 0.060    | 0.20          | 0.86      | 46                             | 835               | 64   | 9 278               | 1 584.8                    | 1981         | 85 12                          |
| 64    | 19.50                       | 0.055    | 0.30          | 0.80      | 77                             | 854               | 55   | 14 163              | 1 541.3                    | 1982         | 82 06 - SUSP B2 07             |
| 16    | 27.00                       | 0.110    | 0.20          | 0.86      | 34                             | 850               | 65   | 14 724              | 1 555.5                    | 1982         | 85 12                          |
| 16    | 18.00                       | 0.050    | 0.26          | 0.86      | 49                             | 872               | 70   | 14 000              | 1 454.5                    | 1983         | 85 06 - SUSP B5 03             |
| 4     | 46.48                       | 0.080    | 0.13          | 0.85      | 58                             | 860               | 71   | 7 346               | 1 502.5                    | 1982         | 84 06                          |
| 8     | 52.70                       | 0.047    | 0.21          | 0.85      | 48                             | 854               | 85   | 11 108              | 1 484.8                    | 1984         | 85 09                          |
| 64    | 50.70                       | 0.116    | 0.11          | 0.85      | 51                             | 862               | 71   | 8 550               | 1 495.1                    | 1984         | 85 02                          |
| 64    | 15.90                       | 0.026    | 0.50          | 0.87      | 43                             | 890               | 68   | 8 481               | 1 443.1                    | 1984         | 85 04 - SUSP B5 05             |
| 64    | 32.30                       | 0.032    | 0.25          | 0.73      | 104                            | 844               | 73   | 14 755              | 1 498.2                    | 1984         | 85 08                          |
| 64    | 15.39                       | 0.066    | 0.40          | 0.62      | 134                            | 817               | 65   | 15 170              | 2 232.7                    | 1980         | 81 06                          |
| 64    | 17.80                       | 0.077    | 0.22          | 0.62      | 180                            | 780               | 65   | 14 500              | 2 149.6                    | 1982         | 83 03                          |
| 64    | 15.90                       | 0.090    | 0.30          | 0.62      |                                | 823               | 65   | 15 186              | 2 154.8                    | 1980         | 85 12                          |
| 2 492 | 8.15                        | 0.113    | 0.25          | 0.79      | 150                            | 810               | 40   | 10 462              | 1 406.5                    | 1982         | 85 12                          |
| 698   | 5.77                        | 0.145    | 0.35          | 0.79      | 76                             | 834               | 57   | 10 240              | 1 539.2                    | 1967         | 85 08 - GPP                    |
| 128   | 4.61                        | 0.180    | 0.38          | 0.79      | 88                             | 831               | 40   | 7 832               | 1 523.7                    | 1981         | 85 08 - GPP                    |
| 64    | 3.00                        | 0.250    | 0.35          | 0.90      | 28                             | 865               | 31   | 5 270               | 723.0                      | 1981         | 83 12 - GPP                    |
| 147   | 2.08                        | 0.160    | 0.25          | 0.87      | 51                             | 898               | 52   | 11 050              | 1 475.3                    | 1965         | 83 12 - GPP                    |
| 64    | 2.00                        | 0.210    | 0.40          | 0.86      | 56                             | 850               | 32   | 9 146               | 1 217.5                    | 1982         | 82 08                          |
| 64    | 2.90                        | 0.170    | 0.40          | 0.88      | 49                             | 867               | 37   | 9 322               | 1 206.6                    | 1984         | 85 01                          |
| 128   | 2.65                        | 0.140    | 0.30          | 0.85      | 61                             | 849               | 42   | 9 588               | 1 255.9                    | 1970         | 83 12                          |
| 64    | 11.00                       | 0.090    | 0.20          | 0.85      | 71                             | 847               | 40   | 9 442               | 1 274.3                    | 1984         | 84 10                          |
| 64    | 8.90                        | 0.070    | 0.40          | 0.85      | 58                             | 862               | 40   | 8 300               | 1 285.7                    | 1984         | 85 03                          |
| 384   | 5.72                        | 0.060    | 0.26          | 0.85      | 60                             | 864               | 39   | 8 000               | 1 225.5                    | 1984         | 85 12                          |
| 65    | 0.91                        | 0.220    | 0.35          | 0.87      | 54                             | 811               | 39   | 6 571               | 1 042.4                    | 1973         | 76 05 - GPP                    |
| 65    | 1.22                        | 0.240    | 0.35          | 0.87      | 54                             | 811               | 32   | 7 920               | 1 053.7                    | 1977         | 78 12                          |
| 32    | 14.00                       | 0.140    | 0.30          | 0.80      | 88                             | 857               | 40   | 9 770               | 1 437.3                    | 1979         | 83 12 - GPP                    |
| 65    | 1.86                        | 0.200    | 0.20          | 0.82      | 80                             | 829               | 43   | 9 590               | 1 351.0                    | 1961         | 82 12 - GPP                    |
| 64    | 3.10                        | 0.140    | 0.46          | 0.87      | 53                             | 876               | 46   | 9 970               | 1 338.5                    | 1973         | 79 01 - GPP                    |
| 64    | 5.50                        | 0.230    | 0.39          | 0.88      | 47                             | 892               | 46   | 9 570               | 1 339.0                    | 1978         | 80 12 - GPP                    |
| 32    | 6.10                        | 0.180    | 0.25          | 0.81      | 64                             | 856               | 52   | 9 437               | 1 224.8                    | 1958         | 83 12 - GPP                    |
| 64    | 1.50                        | 0.170    | 0.40          | 0.80      | 98                             | 869               | 39   | 14 650              | 1 446.3                    | 1980         | 81 07 - GPP                    |
| 64    | 1.00                        | 0.200    | 0.32          | 0.80      | 62                             | 870               | 43   | 8 932               | 1 414.5                    | 1980         | 84 05                          |
| 36    | 7.32                        | 0.165    | 0.55          | 0.82      | 71                             | 815               | 41   | 9 660               | 1 363.4                    | 1968         | 74 12 - SUSP 69 12             |
| 1 040 |                             |          |               |           | 71                             | 870               | 44   | 10 340              | 1 369.2                    | 1954         | 82 12 - GPP                    |
| 752   | 12.96                       | 0.150    | 0.48          | 0.82      |                                |                   |      |                     |                            |              |                                |
| 288   | 16.75                       | 0.174    | 0.48          | 0.82      |                                |                   |      |                     |                            |              |                                |
| 512   | 9.56                        | 0.147    | 0.46          | 0.87      | 48                             | 878               | 47   | 10 270              | 1 352.7                    | 1962         | 83 12 - GPP                    |
| 110   | 0.91                        | 0.170    | 0.30          | 0.80      | 74                             | 870               | 48   | 9 650               | 1 371.9                    | 1957         | 73 12 - GPP                    |
| 16    | 10.70                       | 0.123    | 0.55          | 0.81      | 71                             | 870               | 43   | 9 790               | 1 374.3                    | 1962         | 63 02 - ABAND 63 08            |
| 16    | 9.14                        | 0.180    | 0.27          | 0.81      | 74                             | 870               | 48   | 10 070              | 1 440.8                    | 1961         | 71 05 - ABAND 83 02            |
| 65    | 2.44                        | 0.226    | 0.49          | 0.82      | 53                             | 860               | 38   | 8 270               | 1 445.4                    | 1959         | 78 10 - GPP                    |
| 65    | 6.71                        | 0.220    | 0.32          | 0.82      | 74                             | 865               | 49   | 9 900               | 1 364.6                    | 1972         | 73 02 - ABAND 72 06            |
| 64    | 7.50                        | 0.190    | 0.35          | 0.84      | 68                             | 857               | 38   | 9 290               | 1 414.8                    | 1979         | 85 12                          |
| 64    | 8.20                        | 0.160    | 0.50          | 0.85      | 68                             | 857               | 40   | 9 700               | 1 455.9                    | 1979         | 82 12 - ABAND 81 05            |
| 64    | 11.00                       | 0.150    | 0.35          | 0.80      | 67                             | 857               | 41   | 8 586               | 1 360.9                    | 1979         | 83 12 - GPP                    |
| 64    | 4.39                        | 0.140    | 0.35          | 0.80      | 88                             | 857               | 41   | 10 515              | 1 494.0                    | 1979         | 83 12 - SUSP 81 09             |
| 64    | 3.90                        | 0.120    | 0.35          | 0.80      | 88                             | 857               | 44   | 10 091              | 1 443.3                    | 1979         | 80 08 - SUSP 83 12             |
| 712   | 4.90                        | 0.146    | 0.48          | 0.80      | 63                             | 862               | 38   | 9 649               | 1 359.7                    | 1980         | 83 06                          |
| 64    | 6.00                        | 0.170    | 0.45          | 0.81      | 58                             | 883               | 39   | 9 636               | 1 390.3                    | 1981         | 82 11 - SUSP 84 02             |
| 128   | 9.30                        | 0.120    | 0.60          | 0.81      | 72                             | 863               | 38   | 9 620               | 1 203.2                    | 1981         | 85 12                          |
| 64    | 12.00                       | 0.140    | 0.50          | 0.82      | 70                             | 872               | 47   | 9 834               | 1 288.5                    | 1981         | 83 01                          |
| 64    | 5.00                        | 0.140    | 0.50          | 0.82      | 70                             | 882               | 47   | 9 781               | 1 254.2                    | 1980         | 83 01                          |
| 64    | 5.30                        | 0.120    | 0.55          | 0.82      | 74                             | 819               | 39   | 8 723               | 1 229.2                    | 1982         | 83 01                          |

TABLE 2-4

| FIELD<br>POOL               | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|-----------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                             | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                             |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                             | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>WAYNE-ROSEDALE</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| <b>027-20W4 (CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ VV             | 424.0                          | 0.02     |          | 8.5                            |                                | 8.5                            | 1.3                            | 7.2                                  |
| BANFF C                     | 277.0                          | 0.10     |          | 27.7                           |                                | 27.7                           | 19.9                           | 7.8                                  |
| <b>WEMBLEY 073-08W6</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| CHARLIE LAKE A              | 54.1                           | 0.10     |          | 5.4                            |                                | 5.4                            | 4.4                            | 1.0                                  |
| CHARLIE LAKE B              | 177.0                          | 0.10     |          | 17.7                           |                                | 17.7                           | 6.6                            | 11.1                                 |
| HALFWAY N                   | 474.0                          | 0.15     |          | 71.1                           |                                | 71.1                           | 11.5                           | 59.6                                 |
| HALFWAY O                   | 52.5                           | 0.15     |          | 7.9                            |                                | 7.9                            | 5.8                            | 2.1                                  |
| HALFWAY R                   | 49.6                           | 0.10     |          | 5.0                            |                                | 5.0                            | 0.5                            | 4.5                                  |
| HALFWAY B                   | 10 300.0                       | 0.15     |          | 1 550.0                        |                                | 1 550.0                        | 553.4                          | 996.6                                |
| DOIG A                      | 597.0                          | 0.15     |          | 90.0                           |                                | 90.0                           | 20.9                           | 69.1                                 |
| DOIG B                      | 282.0                          | 0.15     |          | 42.3                           |                                | 42.3                           | 10.1                           | 32.2                                 |
| DOIG C                      | 324.0                          | 0.15     |          | 48.6                           |                                | 48.6                           | 2.1                            | 46.5                                 |
| DOIG D                      | 525.0                          | 0.15     |          | 78.8                           |                                | 78.8                           | 5.6                            | 73.2                                 |
| DOIG E                      | 533.0                          | 0.15     |          | 80.0                           |                                | 80.0                           | 9.7                            | 70.3                                 |
| DOIG F                      | 71.0                           | 0.15     |          | 10.7                           |                                | 10.7                           | 0.6                            | 10.1                                 |
| <b>WERNER 034-12W4</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A               | 247.0                          | 0.10     |          | 24.7                           |                                | 24.7                           | 0.6                            | 24.1                                 |
| <b>WEST COVE 055-06W5</b>   |                                |          |          |                                |                                |                                |                                |                                      |
| NORDEGG-BANFF A             | 895.0                          | 0.05     |          | 44.8                           |                                | 44.8                           | 1.1                            | 43.7                                 |
| NORDEGG-BANFF B             | 144.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| <b>WEST DRUMHELLER</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| <b>030-21W4</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| D-2 A                       | 7 170.0                        | 0.65     |          | 4 660.0                        |                                | 4 660.0                        | 4 334.5                        | 325.5                                |
| IRETON A                    | 326.0                          | 0.15     |          | 48.9                           |                                | 48.9                           | 41.5                           | 7.4                                  |
| D-3 A                       | 1 250.0                        | 0.65     |          | 813.0                          |                                | 813.0                          | 738.3                          | 74.7                                 |
| <b>WESTEROSE 046-28W4</b>   |                                |          |          |                                |                                |                                |                                |                                      |
| D-3                         | 31 000.0                       | 0.71     |          | 22 000.0                       |                                | 22 000.0                       | 18 328.7                       | 3 671.3                              |
| <b>WESTEROSE SOUTH</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| <b>043-02W5</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ A              | 256.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BASAL QUARTZ D              | 359.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BANFF A                     | 144.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| <b>WESTPEM 049-13W5</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| OSTRACOD A                  | 249.0                          | 0.10     |          | 24.9                           |                                | 24.9                           | 4.9                            | 20.0                                 |
| OSTRACOD B                  | 78.0                           | 0.10     |          | 7.8                            |                                | 7.8                            | 1.5                            | 6.3                                  |
| NISKU A                     | 2 650.0                        | 0.40     | 0.35     | 1 060.0                        | 928.0                          | 1 990.0                        | 786.0                          | 1 204.0                              |
| SOLVENT FLOOD               |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU C                     | 4 000.0                        | 0.40     | 0.40     | 1 600.0                        | 1 600.0                        | 3 200.0                        | 1 021.5                        | 2 178.5                              |
| SOLVENT FLOOD               |                                |          |          |                                |                                |                                |                                |                                      |
| NISKU D                     | 2 200.0                        | 0.40     | 0.30     | 880.0                          | 660.0                          | 1 540.0                        | 642.2                          | 897.8                                |
| SOLVENT FLOOD               |                                |          |          |                                |                                |                                |                                |                                      |
| <b>WESTWARD HD 033-04W5</b> |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                    | 73.9                           | 0.15     |          | 11.1                           |                                | 11.1                           | 7.8                            | 3.3                                  |
| VIKING B                    | 164.0                          | 0.01     |          | 1.6                            |                                | 1.6                            | 0.6                            | 1.0                                  |
| RUNDLE A TOTAL              | 6 870.0                        |          |          | 1 100.0                        | 661.0                          | 1 760.0                        | 1 685.0                        | 75.0                                 |
| PRIMARY AREA                | 2 150.0                        | 0.16     |          | 344.0                          |                                | 344.0                          |                                |                                      |
| WATER FLOOD AREA            | 4 720.0                        | 0.16     | 0.14     | 755.0                          | 661.0                          | 1 420.0                        |                                |                                      |
| <b>WHITECOURT 060-11W5</b>  |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A                    | 32.3                           | <0.02    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| <b>WHITEMUD 051-25W4</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE                   | 238.0                          | <0.18    |          | 42.2                           |                                | 42.2                           | 42.2                           |                                      |
| <b>WILDWOOD 054-09W5</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ A              | 204.0                          | 0.10     |          | 20.4                           |                                | 20.4                           | 1.6                            | 18.8                                 |
| <b>WILLESDEN GREEN</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| <b>042-07W5</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A               | 1 220.0                        | 0.06     | 0.06     | 73.2                           | 73.2                           | 146.0                          | 95.6                           | 50.4                                 |
| WATER FLOOD                 |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER B               | 1 910.0                        | 0.02     |          | 38.1                           |                                | 38.1                           | 35.2                           | 2.9                                  |
| BELLY RIVER C               | 42.4                           | <0.09    |          | 3.7                            |                                | 3.7                            | 3.7                            |                                      |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 9.40                        | 0.160    | 0.45          | 0.80      | 60                             | 876               | 52   | 9 554               | 1 336.3                    | 1980         | 85 12                          |
| 192   | 2.80                        | 0.130    | 0.51          | 0.81      | 59                             | 877               | 36   | 9 856               | 1 385.6                    | 1980         | 83 01                          |
| 64    | 1.20                        | 0.110    | 0.20          | 0.80      | 75                             | 832               | 59   | 8 500               | 2 077.4                    | 1981         | 82 11                          |
| 64    | 3.00                        | 0.139    | 0.15          | 0.78      | 183                            | 832               | 83   | 19 546              | 2 064.3                    | 1980         | 81 05                          |
| 64    | 10.63                       | 0.133    | 0.32          | 0.77      | 108                            | 820               | 78   | 21 560              | 2 059.1                    | 1984         | 84 04                          |
| 64    | 2.50                        | 0.070    | 0.30          | 0.67      | 180                            | 802               | 80   | 21 443              | 2 095.8                    | 1979         | 85 07                          |
| 64    | 2.55                        | 0.090    | 0.48          | 0.65      | 183                            | 807               | 83   | 21 443              | 2 225.5                    | 1984         | 85 07                          |
| 3 136 | 7.21                        | 0.100    | 0.32          | 0.67      | 180                            | 802               | 80   | 22 421              | 2 128.3                    | 1978         | 85 04                          |
| 64    | 25.40                       | 0.075    | 0.30          | 0.70      | 120                            | 838               | 76   | 21 814              | 2 163.2                    | 1982         | 82 12                          |
| 64    | 10.70                       | 0.074    | 0.17          | 0.67      | 162                            | 802               | 76   | 21 717              | 2 157.7                    | 1983         | 84 03                          |
| 64    | 16.35                       | 0.067    | 0.69          | 0.67      | 147                            | 811               | 76   | 20 984              | 2 150.8                    | 1983         | 84 08                          |
| 64    | 23.33                       | 0.069    | 0.24          | 0.67      | 162                            | 802               | 76   | 20 102              | 2 172.9                    | 1983         | 84 09                          |
| 64    | 21.53                       | 0.074    | 0.22          | 0.67      | 162                            | 802               | 76   | 21 837              | 2 162.4                    | 1984         | 84 11                          |
| 64    | 2.90                        | 0.070    | 0.19          | 0.67      | 140                            | 838               | 73   | 21 141              | 2 143.6                    | 1984         | 84 12                          |
| 64    | 3.50                        | 0.200    | 0.40          | 0.92      | 31                             | 867               | 34   | 10 985              | 1 067.3                    | 1981         | 82 06                          |
| 64    | 16.17                       | 0.156    | 0.37          | 0.88      | 50                             | 904               | 45   | 11 321              | 1 468.9                    | 1980         | 85 04 - SUSP 84 12             |
| 32    | 6.70                        | 0.120    | 0.39          | 0.92      | 27                             | 919               | 43   | 8 000               | 1 460.1                    | 1984         | 85 06 - SUSP 85 07             |
| 1 730 | 14.00                       | 0.050    | 0.20          | 0.74      | 120                            | 815               | 56   | 13 790              | 1 674.3                    | 1952         | 83 12 - GPP                    |
| 445   | 3.05                        | 0.040    | 0.25          | 0.80      | 78                             | 811               | 64   | 13 992              | 1 712.4                    | 1967         | 80 04 - GPP                    |
| 272   | 7.50                        | 0.087    | 0.13          | 0.81      | 69                             | 839               | 57   | 14 070              | 1 723.3                    | 1954         | 85 12 - GPP - MRL              |
| 652   | 72.20                       | 0.105    | 0.07          | 0.67      | 166                            | 820               | 82   | 17 930              | 2 204.6                    | 1952         | 83 12                          |
| 64    | 5.50                        | 0.130    | 0.30          | 0.80      | 86                             | 882               | 60   | 12 635              | 1 889.8                    | 1980         | 83 12 - SUSP 81 08             |
| 64    | 5.00                        | 0.165    | 0.15          | 0.80      | 85                             | 851               | 59   | 13 500              | 1 852.0                    | 1984         | 85 04 - SUSP 85 02             |
| 64    | 2.80                        | 0.130    | 0.24          | 0.80      | 90                             | 910               | 49   | 12 886              | 1 771.6                    | 1980         | 84 12 - SUSP 82 12             |
| 64    | 4.00                        | 0.150    | 0.10          | 0.72      | 125                            | 811               | 88   | 17 037              | 2 462.0                    | 1981         | 82 11                          |
| 64    | 2.40                        | 0.083    | 0.15          | 0.72      | 110                            | 778               | 80   | 32 200              | 2 432.7                    | 1983         | 84 09                          |
| 62    | 76.48                       | 0.090    | 0.15          | 0.64      | 208                            | 815               | 100  | 38 230              | 2 929.4                    | 1977         | 82 08                          |
| 60    | 90.35                       | 0.110    | 0.14          | 0.78      | 130                            | 824               | 104  | 31 915              | 3 033.0                    | 1979         | 85 02                          |
| 74    | 59.30                       | 0.100    | 0.09          | 0.55      | 328                            | 798               | 104  | 40 962              | 3 139.3                    | 1979         | 82 08                          |
| 64    | 3.70                        | 0.080    | 0.35          | 0.60      | 213                            | 844               | 85   | 20 100              | 2 457.3                    | 1964         | 82 12 - GPP                    |
| 64    | 6.10                        | 0.100    | 0.30          | 0.60      | 210                            | 844               | 66   | 20 700              | 2 417.0                    | 1962         | 83 12 - GPP                    |
| 2 169 | 7.47                        | 0.074    | 0.24          | 0.72      | 152                            | 844               | 89   | 23 580              | 2 698.7                    | 1955         | 78 12 - GPP                    |
| 1 459 | 7.99                        | 0.074    | 0.24          | 0.72      |                                |                   |      |                     |                            |              |                                |
| 65    | 0.61                        | 0.170    | 0.40          | 0.80      | 82                             | 844               | 66   | 8 290               | 1 252.4                    | 1968         | 71 05 - ABAND 70 05            |
| 81    | 3.47                        | 0.150    | 0.30          | 0.81      | 77                             | 839               | 53   | 9 030               | 1 244.2                    | 1949         | 74 12 - ABAND 70 09            |
| 64    | 4.20                        | 0.130    | 0.20          | 0.73      | 128                            | 839               | 65   | 16 374              | 1 767.5                    | 1980         | 80 10                          |
| 324   | 4.24                        | 0.140    | 0.28          | 0.88      | 62                             | 815               | 53   | 9 070               | 1 538.3                    | 1961         | 85 12 - GPP                    |
| 453   | 4.82                        | 0.137    | 0.23          | 0.83      | 62                             | 815               | 54   | 9 140               | 1 568.8                    | 1956         | 75 12 - GPP                    |
| 30    | 1.22                        | 0.200    | 0.30          | 0.83      | 60                             | 815               | 53   | 8 960               | 1 531.0                    | 1961         | 73 02 - ABAND 64 10            |

TABLE 2-4

| FIELD<br>POOL         | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                       | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                       |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                       | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| WILLESDEN GREEN       |                                |          |          |                                |                                |                                |                                |                                      |
| 042-07W5 (CONTINUED)  |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER H         | 260.0                          | 0.10     |          | 26.0                           |                                | 26.0                           | 15.5                           | 10.5                                 |
| BELLY RIVER J         | 159.0                          | 0.10     |          | 15.9                           |                                | 15.9                           | 9.9                            | 6.0                                  |
| BELLY RIVER L         | 307.0                          | 0.03     |          | 9.2                            |                                | 9.2                            | 8.1                            | 1.1                                  |
| BELLY RIVER M         | 251.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| BELLY RIVER N         | 185.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BELLY RIVER D         | 325.0                          | 0.10     |          | 32.5                           |                                | 32.5                           | 1.9                            | 30.6                                 |
| BELLY RIVER Q         | 359.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| BELLY RIVER R         | 256.0                          | 0.05     |          | 12.8                           |                                | 12.8                           | 1.5                            | 11.3                                 |
| BELLY RIVER S         | 314.0                          | 0.10     |          | 31.4                           |                                | 31.4                           | 0.1                            | 31.3                                 |
| BELLY RIVER T         | 165.0                          | 0.10     |          | 16.5                           |                                | 16.5                           | 0.9                            | 15.6                                 |
| BELLY RIVER V         | 364.0                          | 0.10     |          | 36.4                           |                                | 36.4                           | 6.1                            | 30.3                                 |
| BELLY RIVER Y         | 171.0                          | 0.10     |          | 17.1                           |                                | 17.1                           | 0.4                            | 16.7                                 |
| BELLY RIVER Z         | 124.0                          | 0.10     |          | 12.4                           |                                | 12.4                           | 0.4                            | 12.0                                 |
| BELLY RIVER BB        | 185.0                          | 0.10     |          | 18.5                           |                                | 18.5                           | 1.1                            | 17.4                                 |
| BELLY RIVER W&X       | 250.0                          | 0.03     |          | 7.5                            |                                | 7.5                            | 0.4                            | 7.1                                  |
| CARDIUM A TOTAL       | 120 000.0                      |          |          | 10 100.0                       | 15 200.0                       | 25 300.0                       | 15 973.3                       | 9 326.7                              |
| PRIMARY AREA          | 16 000.0                       | 0.08     |          | 1 280.0                        |                                | 1 280.0                        |                                |                                      |
| SOLVENT FLOOD AREA    | 35 600.0                       | 0.07     | 0.07     | 2 480.0                        | 2 480.0                        | 5 000.0                        |                                |                                      |
| WATER FLOOD AREA      | 68 500.0                       | 0.09     | 0.18     | 6 320.0                        | 12 700.0                       | 19 000.0                       |                                |                                      |
| CARDIUM D             | 122.0                          | 0.07     |          | 8.6                            |                                | 8.6                            | 0.1                            | 8.5                                  |
| CARDIUM E             | 409.0                          | 0.10     |          | 40.9                           |                                | 40.9                           | 20.4                           | 20.5                                 |
| CARDIUM G             | 88.2                           | 0.05     |          | 4.4                            |                                | 4.4                            | 1.7                            | 2.7                                  |
| CARDIUM H             | 170.0                          | 0.08     |          | 13.6                           |                                | 13.6                           | 9.4                            | 4.2                                  |
| CARDIUM I             | 190.0                          | 0.10     |          | 19.0                           |                                | 19.0                           | 4.2                            | 14.8                                 |
| CARDIUM J             | 243.0                          | 0.10     |          | 24.3                           |                                | 24.3                           | 1.6                            | 22.7                                 |
| CARDIUM K             | 86.9                           | 0.10     |          | 8.7                            |                                | 8.7                            | 1.3                            | 7.4                                  |
| SECOND WHITE          | 35.0                           | 0.18     |          | 6.3                            |                                | 6.3                            | 5.5                            | 0.8                                  |
| SPECKS A              |                                |          |          |                                |                                |                                |                                |                                      |
| SECOND WHITE          | 730.0                          | 0.02     |          | 14.6                           |                                | 14.6                           | 5.7                            | 8.9                                  |
| SPECKS B              |                                |          |          |                                |                                |                                |                                |                                      |
| SECOND WHITE          | 108.0                          | 0.10     |          | 10.8                           |                                | 10.8                           | 6.5                            | 4.3                                  |
| SPECKS C              |                                |          |          |                                |                                |                                |                                |                                      |
| SECOND WHITE          | 729.0                          | 0.10     |          | 72.9                           |                                | 72.9                           | 23.4                           | 49.5                                 |
| SPECKS D              |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING A              | 4 740.0                        | 0.10     |          | 474.0                          |                                | 474.0                          | 390.1                          | 83.9                                 |
| VIKING B              | 450.0                          | 0.25     |          | 113.0                          |                                | 113.0                          | 74.2                           | 38.8                                 |
| VIKING F              | 69.1                           | 0.10     |          | 6.9                            |                                | 6.9                            | 0.7                            | 6.2                                  |
| VIKING G              | 190.0                          | 0.15     |          | 28.5                           |                                | 28.5                           | 9.9                            | 18.6                                 |
| VIKING H              | 1 450.0                        | 0.10     |          | 145.0                          |                                | 145.0                          | 18.6                           | 126.4                                |
| VIKING I              | 96.7                           | 0.15     |          | 14.5                           |                                | 14.5                           | 4.0                            | 10.5                                 |
| VIKING J              | 139.0                          | 0.15     |          | 20.9                           |                                | 20.9                           | 2.7                            | 18.2                                 |
| VIKING L              | 28.7                           | 0.15     |          | 4.3                            |                                | 4.3                            | 1.9                            | 2.4                                  |
| VIKING M              | 50.7                           | 0.15     |          | 7.6                            |                                | 7.6                            | 0.6                            | 7.0                                  |
| VIKING N              | 49.4                           | 0.15     |          | 7.4                            |                                | 7.4                            | 0.1                            | 7.3                                  |
| VIKING O              | 61.3                           | 0.15     |          | 9.2                            |                                | 9.2                            | 0.3                            | 8.9                                  |
| VIKING P              | 49.1                           | 0.15     |          | 7.4                            |                                | 7.4                            | 2.2                            | 5.2                                  |
| VIKING Q              | 19.3                           | 0.10     |          | 1.9                            |                                | 1.9                            | 0.4                            | 1.5                                  |
| VIKING R              | 44.6                           | 0.20     |          | 8.9                            |                                | 8.9                            | 2.7                            | 6.2                                  |
| VIKING S              | 45.7                           | 0.15     |          | 6.9                            |                                | 6.9                            | 0.8                            | 6.1                                  |
| VIKING T              | 89.8                           | 0.15     |          | 13.5                           |                                | 13.5                           | 1.6                            | 11.9                                 |
| VIKING V              | 12.3                           | 0.15     |          | 1.8                            |                                | 1.8                            | 1.0                            | 0.8                                  |
| VIKING W              | 90.1                           | 0.20     |          | 18.0                           |                                | 18.0                           |                                | 18.0                                 |
| VIKING Y              | 39.8                           | 0.15     |          | 6.0                            |                                | 6.0                            | 0.3                            | 5.7                                  |
| GLAUCONITIC A TOTAL   | 1 560.0                        |          |          | 236.0                          | 70.5                           | 306.0                          | 228.2                          | 77.8                                 |
| PRIMARY AREA          | 153.0                          | 0.15     |          | 23.0                           |                                | 23.0                           |                                |                                      |
| WATER FLOOD AREA      | 1 410.0                        | 0.15     | 0.05     | 213.0                          | 70.5                           | 283.0                          |                                |                                      |
| GLAUCONITIC E         | 81.3                           | 0.15     |          | 12.2                           |                                | 12.2                           | 1.0                            | 11.2                                 |
| ELLERSLIE B           | 134.0                          | 0.10     |          | 13.4                           |                                | 13.4                           | 2.5                            | 10.9                                 |
| ELLERSLIE C           | 84.8                           | 0.10     |          | 8.5                            |                                | 8.5                            | 3.9                            | 4.6                                  |
| ELLERSLIE D           | 124.0                          | 0.10     |          | 12.4                           |                                | 12.4                           | 1.0                            | 11.4                                 |
| ROCK CREEK B          | 54.0                           | 0.10     |          | 5.4                            |                                | 5.4                            | 0.2                            | 5.2                                  |
| ROCK CREEK C          | 135.0                          | 0.10     |          | 13.5                           |                                | 13.5                           | 1.1                            | 12.4                                 |
| ROCK CREEK D          | 118.0                          | 0.10     |          | 11.8                           |                                | 11.8                           |                                | 11.8                                 |
| WILLOW 028-17W4       |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING B              | 50.0                           | 0.10     |          | 5.0                            |                                | 5.0                            | 0.3                            | 4.7                                  |
| WILSON CREEK 043-04W5 |                                |          |          |                                |                                |                                |                                |                                      |
| BELLY RIVER A         | 1 110.0                        | 0.10     |          | 111.0                          |                                | 111.0                          | 4.8                            | 106.2                                |
| CARDIUM A             | 117.0                          | 0.10     |          | 11.7                           |                                | 11.7                           | 0.5                            | 11.2                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9      | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|--------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA   | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha     | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64     | 6.85                        | 0.130    | 0.45          | 0.83      | 62                             | 820               | 47   | 9 220               | 1 597.2                    | 1967         | 84 05                          |
| 195    | 0.91                        | 0.154    | 0.30          | 0.83      | 59                             | 815               | 52   | 9 530               | 1 525.8                    | 1972         | 85 12                          |
| 65     | 5.18                        | 0.153    | 0.28          | 0.83      | 67                             | 815               | 53   | 8 960               | 1 486.5                    | 1963         | 80 12 - GPP                    |
| 64     | 6.30                        | 0.150    | 0.30          | 0.83      | 58                             | 815               | 52   | 9 530               | 1 390.0                    | 1978         | 82 12 - SUSP 80 01             |
| 64     | 4.50                        | 0.130    | 0.40          | 0.83      | 65                             | 825               | 56   | 9 000               | 1 410.8                    | 1981         | 83 12 - SUSP 82 06             |
| 64     | 5.90                        | 0.140    | 0.26          | 0.83      | 66                             | 831               | 42   | 8 636               | 1 461.2                    | 1982         | 82 05 - GPP                    |
| 64     | 5.30                        | 0.150    | 0.15          | 0.83      | 65                             | 773               | 55   | 6 250               | 1 532.1                    | 1982         | 85 12 - ABAND 82 12            |
| 64     | 7.30                        | 0.120    | 0.45          | 0.83      | 61                             | 835               | 55   | 8 214               | 1 402.1                    | 1982         | 85 12 - GPP                    |
| 64     | 6.50                        | 0.130    | 0.30          | 0.83      | 61                             | 835               | 55   | 9 396               | 1 619.8                    | 1978         | 84 03 - SUSP 84 02             |
| 64     | 3.70                        | 0.120    | 0.30          | 0.83      | 61                             | 835               | 55   | 10 233              | 1 578.7                    | 1983         | 84 03                          |
| 64     | 7.00                        | 0.140    | 0.30          | 0.83      | 61                             | 834               | 55   | 9 355               | 1 564.5                    | 1979         | 84 05                          |
| 64     | 4.60                        | 0.140    | 0.50          | 0.83      | 61                             | 835               | 55   | 14 471              | 1 574.0                    | 1962         | 84 09                          |
| 64     | 2.00                        | 0.180    | 0.35          | 0.83      | 70                             | 844               | 40   | 7 457               | 1 509.0                    | 1983         | 84 09                          |
| 64     | 4.59                        | 0.152    | 0.50          | 0.83      | 70                             | 835               | 51   | 9 200               | 1 460.8                    | 1984         | 85 03                          |
| 47     | 9.04                        | 0.120    | 0.30          | 0.70      | 61                             | 835               | 55   | 15 269              | 1 505.6                    | 1964         | 85 10                          |
| 52 887 |                             |          |               |           | 176                            | 820               | 60   | 21 200              | 1 897.4                    | 1954         | 85 12 - GPP                    |
| 9 660  | 2.53                        | 0.114    | 0.13          | 0.66      |                                |                   |      |                     |                            |              |                                |
| 10 313 | 4.83                        | 0.111    | 0.13          | 0.74      |                                |                   |      |                     |                            |              |                                |
| 32 914 | 2.29                        | 0.153    | 0.10          | 0.66      |                                |                   |      |                     |                            |              |                                |
| 65     | 4.27                        | 0.080    | 0.15          | 0.65      | 177                            | 825               | 60   | 20 240              | 1 824.4                    | 1976         | 78 09                          |
| 192    | 4.26                        | 0.100    | 0.23          | 0.65      | 176                            | 830               | 55   | 20 340              | 1 914.1                    | 1978         | 85 12                          |
| 64     | 2.90                        | 0.100    | 0.34          | 0.72      | 49                             | 844               | 60   | 12 444              | 1 900.5                    | 1979         | 84 12 - GPP                    |
| 64     | 2.78                        | 0.150    | 0.15          | 0.75      |                                |                   |      | 20 796              | 1 914.6                    | 1975         | 78 12                          |
| 64     | 3.00                        | 0.150    | 0.13          | 0.76      | 100                            | 832               | 60   | 19 651              | 1 985.3                    | 1979         | 79 12                          |
| 64     | 4.40                        | 0.130    | 0.15          | 0.78      | 97                             | 830               | 68   | 12 229              | 1 911.5                    | 1983         | 83 05                          |
| 64     | 2.00                        | 0.100    | 0.13          | 0.78      | 97                             | 830               | 68   | 19 825              | 2 012.0                    | 1979         | 83 09                          |
| 64     | 1.22                        | 0.080    | 0.20          | 0.70      | 149                            | 801               | 71   | 21 520              | 2 051.0                    | 1975         | 83 07 - GPP                    |
| 64     | 10.80                       | 0.220    | 0.25          | 0.64      | 187                            | 818               | 40   | 22 893              | 2 082.0                    | 1979         | 82 10 - GPP                    |
| 64     | 3.00                        | 0.100    | 0.20          | 0.70      | 149                            | 810               | 74   | 18 867              | 2 133.5                    | 1980         | 81 06 - GPP                    |
| 128    | 14.10                       | 0.090    | 0.30          | 0.64      | 186                            | 833               | 69   | 24 183              | 2 113.8                    | 1980         | 83 05                          |
| 5 952  | 2.39                        | 0.070    | 0.30          | 0.68      | 154                            | 834               | 74   | 25 168              | 2 182.8                    | 1956         | 82 08                          |
| 650    | 1.91                        | 0.090    | 0.36          | 0.63      | 177                            | 815               | 79   | 22 781              | 2 136.1                    | 1967         | 85 10 - GPP                    |
| 64     | 4.50                        | 0.080    | 0.50          | 0.60      | 217                            | 824               | 81   | 25 014              | 2 322.1                    | 1982         | 83 04                          |
| 90     | 4.20                        | 0.100    | 0.25          | 0.67      | 166                            | 840               | 81   | 26 409              | 2 226.5                    | 1980         | 85 12                          |
| 320    | 5.10                        | 0.160    | 0.12          | 0.63      | 180                            | 718               | 86   | 22 760              | 2 277.6                    | 1983         | 85 01                          |
| 128    | 2.30                        | 0.070    | 0.31          | 0.68      | 210                            | 820               | 70   | 22 926              | 2 252.9                    | 1983         | 85 05                          |
| 64     | 4.72                        | 0.090    | 0.25          | 0.68      | 210                            | 820               | 210  | 22 768              | 2 262.4                    | 1982         | 84 02 - GPP                    |
| 64     | 1.10                        | 0.100    | 0.40          | 0.68      | 170                            | 842               | 57   | 23 486              | 2 126.2                    | 1983         | 84 09                          |
| 64     | 1.30                        | 0.130    | 0.31          | 0.68      | 210                            | 823               | 70   | 22 679              | 2 277.9                    | 1983         | 84 10                          |
| 64     | 2.70                        | 0.060    | 0.30          | 0.68      | 210                            | 832               | 70   | 25 965              | 2 286.8                    | 1983         | 84 10 - SUSP 85 02             |
| 64     | 3.44                        | 0.063    | 0.35          | 0.68      | 210                            | 823               | 70   | 26 507              | 2 239.0                    | 1984         | 84 10                          |
| 64     | 2.82                        | 0.058    | 0.30          | 0.68      | 210                            | 823               | 70   | 21 033              | 2 308.2                    | 1983         | 84 10 - GPP                    |
| 64     | 1.00                        | 0.090    | 0.50          | 0.67      | 166                            | 832               | 81   | 23 994              | 2 204.5                    | 1984         | 84 10                          |
| 64     | 1.30                        | 0.080    | 0.35          | 0.67      | 166                            | 832               | 81   | 26 226              | 2 203.7                    | 1984         | 84 11                          |
| 64     | 2.50                        | 0.070    | 0.40          | 0.68      | 210                            | 820               | 80   | 25 000              | 2 292.8                    | 1984         | 84 12                          |
| 64     | 5.04                        | 0.063    | 0.35          | 0.68      | 165                            | 824               | 65   | 20 100              | 2 209.3                    | 1983         | 85 03                          |
| 64     | 0.85                        | 0.060    | 0.40          | 0.63      | 177                            | 818               | 86   | 18 818              | 2 239.6                    | 1983         | 85 05                          |
| 64     | 4.00                        | 0.080    | 0.45          | 0.80      | 160                            | 836               | 61   | 22 000              | 2 174.8                    | 1984         | 85 06                          |
| 64     | 1.77                        | 0.076    | 0.30          | 0.66      | 170                            | 818               | 80   | 20 000              | 2 287.3                    | 1982         | 85 08                          |
| 831    |                             |          |               |           | 106                            | 876               | 76   | 25 890              | 2 286.9                    | 1963         | 81 11 - GPP                    |
| 64     | 3.96                        | 0.112    | 0.22          | 0.69      |                                |                   |      |                     |                            |              |                                |
| 767    | 3.20                        | 0.119    | 0.30          | 0.69      |                                |                   |      |                     |                            |              |                                |
| 64     | 2.00                        | 0.110    | 0.23          | 0.75      | 95                             | 870               | 104  | 23 010              | 2 356.0                    | 1984         | 85 02                          |
| 64     | 5.20                        | 0.100    | 0.32          | 0.59      | 180                            | 831               | 86   | 21 144              | 2 404.2                    | 1983         | 84 09 - GPP                    |
| 64     | 4.20                        | 0.080    | 0.27          | 0.54      | 160                            | 812               | 89   | 22 809              | 2 483.5                    | 1983         | 84 10                          |
| 64     | 2.00                        | 0.210    | 0.23          | 0.60      | 160                            | 757               | 78   | 22 308              | 2 355.0                    | 1984         | 85 02                          |
| 64     | 3.15                        | 0.054    | 0.62          | 0.80      | 83                             | 896               | 70   | 14 313              | 2 366.4                    | 1982         | 83 10                          |
| 64     | 5.00                        | 0.090    | 0.30          | 0.67      | 145                            | 835               | 86   | 21 196              | 2 508.6                    | 1983         | 84 09                          |
| 64     | 3.00                        | 0.093    | 0.15          | 0.78      | 79                             | 891               | 70   | 18 741              | 2 487.0                    | 1982         | 83 10 - SUSP 83 07             |
| 64     | 1.00                        | 0.150    | 0.40          | 0.87      | 50                             | 811               | 39   | 5 400               | 1 109.8                    | 1982         | 83 05                          |
| 256    | 5.65                        | 0.140    | 0.34          | 0.83      | 62                             | 833               | 68   | 6 556               | 1 270.7                    | 1979         | 85 12                          |
| 64     | 3.50                        | 0.090    | 0.30          | 0.83      | 65                             | 805               | 58   | 9 115               | 1 615.7                    | 1982         | 83 06                          |

TABLE 2-4

| FIELD<br>POOL               | 1                              | 3        |          | 5                              |                                |                                | 6                              | 7                                    | 8 |
|-----------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|---|
|                             | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |   |
|                             |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |   |
|                             | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |   |
| WIMBORNE 034-26W4           |                                |          |          |                                |                                |                                |                                |                                      |   |
| D-2 A                       | 683.0                          | <0.11    |          | 69.8                           |                                | 69.8                           | 69.8                           |                                      |   |
| D-2 B                       | 329.0                          | 0.06     |          | 19.7                           |                                | 19.7                           | 15.2                           | 4.5                                  |   |
| D-3 A                       | 15 000.0                       | 0.20     |          | 3 000.0                        |                                | 3 000.0                        | 2 466.9                        | 533.1                                |   |
| WINDFALL 060-15W5           |                                |          |          |                                |                                |                                |                                |                                      |   |
| BLUESKY A                   | 297.0                          | 0.10     |          | 29.7                           |                                | 29.7                           | 7.9                            | 21.8                                 |   |
| GETHING D                   | 96.8                           | 0.10     |          | 9.7                            |                                | 9.7                            | 1.1                            | 8.6                                  |   |
| RUNDLE A                    | 2 000.0                        | 0.25     |          | 500.0                          |                                | 500.0                          | 311.3                          | 188.7                                |   |
| D-3 A                       | 13 400.0                       | 0.22     |          | 2 950.0                        |                                | 2 950.0                        | 2 138.4                        | 811.6                                |   |
| D-3 B TOTAL                 | 1 310.0                        |          |          | 131.0                          | 32.4                           | 163.0                          | 131.3                          | 31.7                                 |   |
| PRIMARY AREA                | 500.0                          | 0.10     |          | 50.0                           |                                | 50.0                           |                                |                                      |   |
| GAS FLOOD AREA              | 810.0                          | 0.10     | 0.04     | 81.0                           | 32.4                           | 113.0                          |                                |                                      |   |
| D-3 C                       | 795.0                          | 0.10     |          | 79.5                           |                                | 79.5                           | 21.3                           | 58.2                                 |   |
| WINTERING HILLS<br>025-17W4 |                                |          |          |                                |                                |                                |                                |                                      |   |
| VIKING A                    | 1 400.0                        | 0.42     |          | 588.0                          |                                | 588.0                          | 419.6                          | 168.4                                |   |
| VIKING P                    | 448.0                          | 0.03     |          | 13.4                           |                                | 13.4                           | 7.5                            | 5.9                                  |   |
| VIKING Q                    | 41.3                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |   |
| VIKING S                    | 175.0                          | 0.10     |          | 17.5                           |                                | 17.5                           | 0.8                            | 16.7                                 |   |
| UPPER MANNVILLE I           | 1 140.0                        | 0.03     |          | 34.2                           |                                | 34.2                           | 4.0                            | 30.2                                 |   |
| LOWER MANNVILLE A           | 2 210.0                        | 0.03     |          | 66.3                           |                                | 66.3                           | 43.5                           | 22.8                                 |   |
| LOWER MANNVILLE L           | 148.0                          | 0.05     |          | 7.4                            |                                | 7.4                            | 0.9                            | 6.5                                  |   |
| LOWER MANNVILLE Q           | 210.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |   |
| LOWER MANNVILLE R           | 518.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |   |
| LOWER MANNVILLE T           | 660.0                          | 0.05     |          | 33.0                           |                                | 33.0                           | 23.9                           | 9.1                                  |   |
| LOWER MANNVILLE V           | 607.0                          | 0.10     |          | 60.7                           |                                | 60.7                           | 1.4                            | 59.3                                 |   |
| LOWER MANNVILLE W           | 445.0                          | 0.10     |          | 44.5                           |                                | 44.5                           | 7.0                            | 37.5                                 |   |
| ELLERSLIE A                 | 458.0                          | <0.01    |          | 1.4                            |                                | 1.4                            | 0.8                            | 0.6                                  |   |
| WIZARD LAKE 048-27W4        |                                |          |          |                                |                                |                                |                                |                                      |   |
| BASAL QUARTZ A              | 80.2                           | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |   |
| BASAL QUARTZ B              | 87.6                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |   |
| D-2 A                       | 613.0                          | <0.17    |          | 103.5                          |                                | 103.5                          | 103.5                          |                                      |   |
| D-3 A SOLVENT FLOOD         | 62 000.0                       | 0.66     | 0.29     | 40 900.0                       | 18 100.0                       | 59 000.0                       | 48 540.5                       | 10 459.5                             |   |
| D-3 B                       | 160.0                          | <0.07    |          | 10.8                           |                                | 10.8                           | 10.8                           |                                      |   |
| WORKING 075-04W6            |                                |          |          |                                |                                |                                |                                |                                      |   |
| HALFWAY A                   | 255.0                          | 0.10     |          | 25.5                           |                                | 25.5                           | 4.9                            | 20.6                                 |   |
| WOOD RIVER 043-23W4         |                                |          |          |                                |                                |                                |                                |                                      |   |
| LOWER MANNVILLE A           | 366.0                          | 0.15     |          | 54.9                           |                                | 54.9                           | 29.2                           | 25.7                                 |   |
| LOWER MANNVILLE F           | 33.4                           | 0.05     |          | 1.7                            |                                | 1.7                            |                                | 1.7                                  |   |
| D-2 A                       | 1 250.0                        | 0.15     |          | 190.0                          |                                | 190.0                          | 104.0                          | 86.0                                 |   |
| D-2 B                       | 1 700.0                        | 0.25     |          | 425.0                          |                                | 425.0                          | 39.7                           | 385.3                                |   |
| D-2 C WATER FLOOD           | 1 150.0                        | 0.35     | 0.10     | 403.0                          | 115.0                          | 518.0                          | 307.1                          | 210.9                                |   |
| D-2 D                       | 630.0                          | 0.25     |          | 158.0                          |                                | 158.0                          | 27.6                           | 130.4                                |   |
| D-3 A                       | 294.0                          | <0.10    |          | 28.6                           |                                | 28.6                           | 28.6                           |                                      |   |
| D-3 B                       | 581.0                          | 0.30     |          | 174.0                          |                                | 174.0                          | 16.7                           | 157.3                                |   |
| WORSLEY 087-07W6            |                                |          |          |                                |                                |                                |                                |                                      |   |
| TRIASSIC A                  | 826.0                          | 0.35     |          | 289.0                          |                                | 289.0                          | 136.7                          | 152.3                                |   |
| D-3 F                       | 188.0                          | 0.05     |          | 9.4                            |                                | 9.4                            | 3.4                            | 6.0                                  |   |
| YEKAU LAKE 052-26W4         |                                |          |          |                                |                                |                                |                                |                                      |   |
| LOWER MANNVILLE A           | 431.0                          | <0.01    |          | 3.4                            |                                | 3.4                            | 3.4                            |                                      |   |
| D-2 A                       | 95.7                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |   |
| D-3 A                       | 1 070.0                        | 0.65     |          | 696.0                          |                                | 696.0                          | 636.8                          | 59.2                                 |   |
| D-3 B                       | 39.7                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |   |
| YOUNGSTOWN 031-09W4         |                                |          |          |                                |                                |                                |                                |                                      |   |
| UPPER MANNVILLE A           | 90.6                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |   |
| ARCS                        | 1 870.0                        | <0.36    |          | 656.0                          |                                | 656.0                          | 298.6                          | 357.4                                |   |
| ZAMA 117-04W6               |                                |          |          |                                |                                |                                |                                |                                      |   |
| SULPHUR POINT A             | 203.0                          | <0.02    |          | 2.3                            |                                | 2.3                            | 2.3                            |                                      |   |
| SULPHUR POINT B             | 350.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |   |
| SULPHUR POINT C             | 258.0                          | 0.20     |          | 51.6                           |                                | 51.6                           | 3.2                            | 48.4                                 |   |
| SULPHUR POINT D             | 319.0                          | <0.01    |          | 2.6                            |                                | 2.6                            | 2.6                            |                                      |   |
| SULPHUR POINT F             | 953.0                          | 0.15     |          | 143.0                          |                                | 143.0                          | 68.7                           | 74.3                                 |   |
| MUSKEG B                    | 120.0                          | 0.20     |          | 24.0                           |                                | 24.0                           | 20.5                           | 3.5                                  |   |
| MUSKEG C                    | 207.0                          | 0.17     |          | 35.2                           |                                | 35.2                           | 33.3                           | 1.9                                  |   |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 268   | 18.99                       | 0.029    | 0.30          | 0.66      | 160                            | 834               | 78   | 19 890              | 2 253.1                    | 1961         | 77 12 - SUSP 77 06             |
| 194   | 7.92                        | 0.042    | 0.24          | 0.67      | 210                            | 829               | 74   | 20 340              | 2 224.7                    | 1964         | 81 12                          |
| 8 066 | 4.57                        | 0.068    | 0.12          | 0.68      | 206                            | 820               | 79   | 21 170              | 2 282.0                    | 1956         | 84 12 - GPP                    |
| 64    | 6.78                        | 0.120    | 0.25          | 0.76      | 102                            | 849               | 63   | 20 162              | 2 032.2                    | 1976         | 76 12                          |
| 64    | 3.00                        | 0.120    | 0.40          | 0.70      | 156                            | 824               | 82   | 15 315              | 2 098.7                    | 1979         | 81 11 - SUSP 84 09             |
| 864   | 3.35                        | 0.120    | 0.20          | 0.72      | 118                            | 834               | 82   | 17 410              | 2 083.6                    | 1957         | 85 12 - GPP                    |
| 5 859 | 8.84                        | 0.060    | 0.12          | 0.49      | 336                            | 811               | 104  | 25 950              | 2 627.3                    | 1957         | 83 12 - GPP                    |
| 424   |                             |          |               |           | 243                            | 825               | 103  | 25 230              | 2 619.1                    | 1972         | 82 12 - GPP                    |
| 168   | 12.50                       | 0.050    | 0.12          | 0.54      |                                |                   |      |                     |                            |              |                                |
| 256   | 13.28                       | 0.050    | 0.12          | 0.54      |                                |                   |      |                     |                            |              |                                |
| 219   | 12.00                       | 0.063    | 0.20          | 0.60      | 220                            | 811               | 103  | 25 550              | 2 746.6                    | 1979         | 82 09                          |
| 309   | 4.02                        | 0.231    | 0.44          | 0.87      | 56                             | 825               | 27   | 7 860               | 887.6                      | 1958         | 64 12                          |
| 64    | 6.10                        | 0.220    | 0.40          | 0.87      | 57                             | 825               | 29   | 7 830               | 869.3                      | 1978         | 85 12                          |
| 64    | 0.90                        | 0.150    | 0.45          | 0.87      | 57                             | 835               | 29   | 7 540               | 876.5                      | 1979         | 83 12 - SUSP 79 06             |
| 64    | 2.10                        | 0.250    | 0.40          | 0.87      | 56                             | 833               | 56   | 8 070               | 858.5                      | 1984         | 84 12                          |
| 475   | 3.29                        | 0.140    | 0.37          | 0.83      | 64                             | 866               | 55   | 7 943               | 1 222.0                    | 1983         | 85 12                          |
| 356   | 6.58                        | 0.179    | 0.35          | 0.81      | 45                             | 887               | 48   | 9 760               | 1 288.7                    | 1965         | 83 12 - GPP                    |
| 64    | 1.54                        | 0.210    | 0.15          | 0.84      | 66                             | 860               | 46   | 9 680               | 1 255.2                    | 1973         | 83 12                          |
| 64    | 2.90                        | 0.205    | 0.32          | 0.81      | 58                             | 860               | 36   | 9 120               | 1 330.3                    | 1979         | 83 12 - SUSP 81 09             |
| 64    | 10.00                       | 0.150    | 0.35          | 0.83      | 66                             | 857               | 37   | 11 067              | 1 322.3                    | 1979         | 82 12 - SUSP 81 09             |
| 64    | 9.80                        | 0.200    | 0.35          | 0.81      | 45                             | 887               | 46   | 9 639               | 1 271.3                    | 1965         | 82 07 - GPP                    |
| 64    | 6.50                        | 0.250    | 0.28          | 0.81      | 64                             | 894               | 38   | 9 552               | 1 277.3                    | 1983         | 84 03 - GPP                    |
| 320   | 1.53                        | 0.180    | 0.39          | 0.83      | 90                             | 866               | 39   | 9 719               | 1 256.6                    | 1983         | 84 06                          |
| 64    | 5.74                        | 0.220    | 0.30          | 0.81      | 45                             | 887               | 46   | 9 760               | 1 273.8                    | 1965         | 83 12 - SUSP 83 03             |
| 32    | 2.13                        | 0.171    | 0.20          | 0.85      | 50                             | 870               | 49   | 10 790              | 1 465.8                    | 1958         | 61 01 - ABAND 60 04            |
| 32    | 2.44                        | 0.165    | 0.20          | 0.84      | 53                             | 870               | 49   | 11 030              | 1 483.5                    | 1953         | 59 05 - ABAND 60 05            |
| 494   | 5.24                        | 0.041    | 0.23          | 0.75      | 106                            | 839               | 71   | 13 790              | 1 756.6                    | 1958         | 82 12 - SUSP 79 12             |
| 1 075 | 86.13                       | 0.096    | 0.07          | 0.75      | 109                            | 834               | 72   | 15 650              | 1 969.0                    | 1951         | 83 11                          |
| 54    | 4.45                        | 0.095    | 0.07          | 0.75      | 109                            | 834               | 77   | 15 200              | 2 108.0                    | 1964         | 72 05 - ABAND 69 12            |
| 128   | 2.62                        | 0.170    | 0.42          | 0.77      | 150                            | 865               | 65   | 13 827              | 1 596.9                    | 1982         | 84 06                          |
| 64    | 5.79                        | 0.170    | 0.30          | 0.83      | 115                            | 847               | 57   | 10 650              | 1 453.1                    | 1956         | 85 01 - GPP                    |
| 16    | 2.00                        | 0.200    | 0.45          | 0.95      | 16                             | 967               | 41   | 12 842              | 1 588.0                    | 1982         | 83 07 - SUSP 83 01             |
| 468   | 3.93                        | 0.100    | 0.14          | 0.79      | 80                             | 887               | 60   | 16 410              | 1 694.1                    | 1964         | 84 10                          |
| 128   | 27.67                       | 0.080    | 0.20          | 0.75      | 80                             | 887               | 60   | 15 820              | 1 705.7                    | 1963         | 84 12                          |
| 187   | 12.00                       | 0.078    | 0.10          | 0.73      | 133                            | 839               | 62   | 15 840              | 1 768.4                    | 1972         | 82 12                          |
| 31    | 38.40                       | 0.080    | 0.17          | 0.79      | 98                             | 887               | 60   | 15 972              | 1 765.9                    | 1983         | 84 12                          |
| 65    | 9.14                        | 0.073    | 0.15          | 0.80      | 142                            | 865               | 61   | 16 030              | 1 695.0                    | 1957         | 73 02 - ABAND 76 05            |
| 128   | 8.44                        | 0.080    | 0.16          | 0.80      | 77                             | 868               | 61   | 13 004              | 1 780.7                    | 1981         | 85 03                          |
| 323   | 2.07                        | 0.190    | 0.26          | 0.88      | 57                             | 844               | 43   | 8 480               | 1 048.8                    | 1961         | 85 08                          |
| 204   | 4.57                        | 0.070    | 0.55          | 0.64      | 106                            | 825               | 81   | 22 000              | 2 192.7                    | 1961         | 85 04                          |
| 65    | 7.01                        | 0.150    | 0.22          | 0.81      | 83                             | 855               | 54   | 9 480               | 1 257.6                    | 1971         | 84 12 - SUSP 80 02             |
| 65    | 5.79                        | 0.042    | 0.24          | 0.80      | 83                             | 820               | 60   | 11 380              | 1 464.6                    | 1964         | 64 12 - ABAND 64 07            |
| 250   | 6.58                        | 0.097    | 0.15          | 0.79      | 87                             | 820               | 63   | 11 450              | 1 557.5                    | 1955         | 67 02                          |
| 16    | 7.32                        | 0.060    | 0.30          | 0.80      | 85                             | 849               | 61   | 11 270              | 1 552.7                    | 1967         | 68 12 - ABAND 68 04            |
| 64    | 1.10                        | 0.220    | 0.35          | 0.90      | 44                             | 884               | 34   | 9 157               | 1 053.8                    | 1979         | 83 12 - SUSP 81 12             |
| 241   | 10.40                       | 0.103    | 0.22          | 0.93      | 18                             | 860               | 42   | 8 760               | 1 132.0                    | 1956         | 79 12 - GPP                    |
| 65    | 5.79                        | 0.077    | 0.16          | 0.84      | 64                             | 860               | 66   | 13 100              | 1 370.1                    | 1967         | 73 02 - SUSP 72 01             |
| 65    | 15.24                       | 0.059    | 0.30          | 0.86      | 52                             | 865               | 64   | 12 760              | 1 484.7                    | 1967         | 69 05 - SUSP 68 01             |
| 19    | 25.91                       | 0.070    | 0.13          | 0.85      | 73                             | 839               | 65   | 12 930              | 1 339.9                    | 1967         | 84 06 - SUSP 85 06             |
| 65    | 9.75                        | 0.079    | 0.20          | 0.80      | 64                             | 860               | 64   | 13 100              | 1 332.3                    | 1967         | 74 12 - SUSP 72 12             |
| 138   | 15.95                       | 0.066    | 0.20          | 0.82      | 74                             | 834               | 69   | 13 030              | 1 341.1                    | 1967         | 75 12 - GPP                    |
| 8     | 18.00                       | 0.100    | 0.11          | 0.94      | 16                             | 881               | 66   | 14 200              | 1 454.5                    | 1967         | 78 12 - GPP                    |
| 13    | 23.16                       | 0.090    | 0.13          | 0.89      | 35                             | 870               | 70   | 14 310              | 1 469.7                    | 1967         | 85 12 - GPP                    |

TABLE 2-4

| FIELD<br>POOL                | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                              | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                              |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                              | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| ZAMA 117-04W6<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| MUSKEG F                     | 254.0                          | <0.10    |          | 23.3                           |                                | 23.3                           | 23.3                           |                                      |
| MUSKEG G                     | 238.0                          | <0.08    |          | 18.4                           |                                | 18.4                           | 18.4                           |                                      |
| MUSKEG H                     | 191.0                          | 0.30     |          | 57.3                           |                                | 57.3                           | 46.5                           | 10.8                                 |
| MUSKEG J                     | 350.0                          | 0.20     |          | 70.0                           |                                | 70.0                           | 31.9                           | 38.1                                 |
| MUSKEG K                     | 120.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| MUSKEG L WATER FLOOD         | 365.0                          | 0.20     | 0.07     | 73.0                           | 25.6                           | 98.6                           | 66.4                           | 32.2                                 |
| MUSKEG N                     | 98.5                           | <0.17    |          | 16.0                           |                                | 16.0                           | 16.0                           |                                      |
| MUSKEG O                     | 286.0                          | 0.20     |          | 57.2                           |                                | 57.2                           | 44.7                           | 12.5                                 |
| MUSKEG P                     | 127.0                          | 0.20     |          | 25.4                           |                                | 25.4                           | 14.1                           | 11.3                                 |
| MUSKEG R                     | 159.0                          | 0.35     |          | 55.6                           |                                | 55.6                           | 23.7                           | 31.9                                 |
| MUSKEG S                     | 79.5                           | 0.20     |          | 15.9                           |                                | 15.9                           | 12.5                           | 3.4                                  |
| MUSKEG T                     | 415.0                          | 0.25     |          | 104.0                          |                                | 104.0                          | 49.0                           | 55.0                                 |
| MUSKEG U                     | 200.0                          | 0.30     |          | 60.0                           |                                | 60.0                           | 33.3                           | 26.7                                 |
| MUSKEG V                     | 400.0                          | 0.40     |          | 160.0                          |                                | 160.0                          | 77.6                           | 82.4                                 |
| MUSKEG W                     | 159.0                          | <0.07    |          | 10.8                           |                                | 10.8                           | 10.8                           |                                      |
| MUSKEG X                     | 79.5                           | <0.05    |          | 3.8                            |                                | 3.8                            | 3.8                            |                                      |
| MUSKEG Y WATER FLOOD         | 350.0                          | 0.20     | 0.10     | 70.0                           | 35.0                           | 105.0                          | 63.9                           | 41.1                                 |
| MUSKEG AA                    | 79.5                           | <0.14    |          | 10.6                           |                                | 10.6                           | 10.6                           |                                      |
| MUSKEG BB                    | 254.0                          | <0.08    |          | 18.5                           |                                | 18.5                           | 18.5                           |                                      |
| MUSKEG DD                    | 100.0                          | 0.25     |          | 25.0                           |                                | 25.0                           | 16.2                           | 8.8                                  |
| MUSKEG EE                    | 114.0                          | <0.29    |          | 32.8                           |                                | 32.8                           | 32.8                           |                                      |
| MUSKEG GG                    | 365.0                          | 0.35     |          | 128.0                          |                                | 128.0                          | 70.2                           | 57.8                                 |
| MUSKEG HH                    | 234.0                          | <0.02    |          | 3.2                            |                                | 3.2                            | 3.2                            |                                      |
| MUSKEG II                    | 120.0                          | 0.20     |          | 24.0                           |                                | 24.0                           | 16.8                           | 7.2                                  |
| MUSKEG KK                    | 156.0                          | 0.10     |          | 15.6                           |                                | 15.6                           | 2.9                            | 12.7                                 |
| MUSKEG LL                    | 159.0                          | 0.25     |          | 40.0                           |                                | 40.0                           | 30.9                           | 9.1                                  |
| MUSKEG MM                    | 49.1                           | <0.10    |          | 4.8                            |                                | 4.8                            | 4.8                            |                                      |
| MUSKEG NN                    | 351.0                          | 0.25     |          | 87.9                           |                                | 87.9                           | 45.2                           | 42.7                                 |
| MUSKEG OO                    | 324.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| MUSKEG PP                    | 50.0                           | 0.20     |          | 10.0                           |                                | 10.0                           | 6.1                            | 3.9                                  |
| MUSKEG QQ                    | 140.0                          | 0.20     |          | 28.0                           |                                | 28.0                           | 4.7                            | 23.3                                 |
| MUSKEG RR                    | 199.0                          | 0.30     |          | 59.7                           |                                | 59.7                           | 13.5                           | 46.2                                 |
| MUSKEG SS                    | 384.0                          | 0.20     |          | 76.8                           |                                | 76.8                           | 3.5                            | 73.3                                 |
| MUSKEG TT                    | 561.0                          | 0.30     |          | 168.0                          |                                | 168.0                          | 0.1                            | 167.9                                |
| MUSKEG UU                    | 374.0                          | 0.30     |          | 112.0                          |                                | 112.0                          | 5.1                            | 106.9                                |
| KEG RIVER A                  | 874.0                          | 0.39     |          | 342.0                          |                                | 342.0                          | 235.5                          | 106.5                                |
| KEG RIVER C                  | 318.0                          | <0.15    |          | 45.0                           |                                | 45.0                           | 45.0                           |                                      |
| KEG RIVER D                  | 477.0                          | <0.22    |          | 102.0                          |                                | 102.0                          | 101.6                          | 0.4                                  |
| KEG RIVER E                  | 397.0                          | 0.41     |          | 164.0                          |                                | 164.0                          | 92.4                           | 71.6                                 |
| KEG RIVER F                  | 874.0                          | 0.25     |          | 219.0                          |                                | 219.0                          | 169.4                          | 49.6                                 |
| KEG RIVER G                  | 318.0                          | 0.35     |          | 111.0                          |                                | 111.0                          | 88.6                           | 22.4                                 |
| KEG RIVER H                  | 1 750.0                        | 0.30     | 0.07     | 525.0                          | 122.0                          | 647.0                          | 345.9                          | 301.1                                |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER I                  | 192.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| KEG RIVER J                  | 477.0                          | 0.07     |          | 33.4                           |                                | 33.4                           | 22.9                           | 10.5                                 |
| KEG RIVER K                  | 127.0                          | 0.30     |          | 38.1                           |                                | 38.1                           | 33.6                           | 4.5                                  |
| KEG RIVER L                  | 234.0                          | 0.25     |          | 58.5                           |                                | 58.5                           | 44.3                           | 14.2                                 |
| KEG RIVER M                  | 674.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| KEG RIVER N                  | 2 220.0                        | 0.06     | 0.04     | 133.0                          | 89.0                           | 222.0                          | 191.4                          | 30.6                                 |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER O                  | 1 030.0                        | 0.34     | 0.06     | 350.2                          | 61.8                           | 412.0                          | 256.2                          | 155.8                                |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER P                  | 286.0                          | 0.35     | 0.15     | 100.0                          | 42.9                           | 143.0                          | 87.8                           | 55.2                                 |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER R                  | 159.0                          | 0.30     |          | 47.7                           |                                | 47.7                           | 45.9                           | 1.8                                  |
| KEG RIVER S                  | 874.0                          | 0.14     |          | 122.0                          | ERSD                           | 122.0                          | 88.7                           | 33.3                                 |
| KEG RIVER T                  | 200.0                          | 0.30     |          | 60.0                           |                                | 60.0                           | 40.4                           | 19.6                                 |
| KEG RIVER U                  | 715.0                          | 0.37     |          | 265.0                          |                                | 265.0                          | 174.2                          | 90.8                                 |
| KEG RIVER V                  | 320.0                          | <0.08    |          | 23.3                           |                                | 23.3                           | 23.3                           |                                      |
| KEG RIVER W                  | 191.0                          | 0.30     |          | 57.3                           |                                | 57.3                           | 46.7                           | 10.6                                 |
| KEG RIVER X                  | 306.0                          | 0.20     |          | 61.2                           |                                | 61.2                           | 14.5                           | 46.7                                 |
| KEG RIVER Y                  | 261.0                          | <0.17    | 0.05     | 43.2                           | 13.5                           | 43.2                           | 43.2                           |                                      |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER Z                  | 477.0                          | 0.37     |          | 176.0                          |                                | 176.0                          | 168.8                          | 7.2                                  |
| KEG RIVER AA                 | 191.0                          | 0.30     |          | 57.3                           |                                | 57.3                           | 52.8                           | 4.5                                  |
| KEG RIVER BB                 | 238.0                          | 0.35     |          | 83.3                           |                                | 83.3                           | 54.3                           | 29.0                                 |
| KEG RIVER CC                 | 795.0                          | 0.25     | 0.12     | 199.0                          | 95.4                           | 294.0                          | 262.9                          | 31.1                                 |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER DD                 | 324.0                          | 0.10     |          | 32.4                           |                                | 32.4                           | 24.4                           | 8.0                                  |
| KEG RIVER EE                 | 1 030.0                        | 0.25     |          | 258.0                          |                                | 258.0                          | 205.5                          | 52.5                                 |
| KEG RIVER FF                 | 1 270.0                        | 0.30     |          | 381.0                          |                                | 381.0                          | 309.2                          | 71.8                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 10   | 63.89                       | 0.060    | 0.20          | 0.83      | 62                             | 860               | 72   | 13 650              | 1 497.2                    | 1967         | 79 01 - SUSP 78 11             |
| 30   | 19.48                       | 0.060    | 0.17          | 0.81      | 74                             | 860               | 73   | 13 800              | 1 557.2                    | 1967         | 74 12 - SUSP 74 04             |
| 9    | 47.06                       | 0.064    | 0.19          | 0.87      | 47                             | 834               | 70   | 14 450              | 1 460.6                    | 1967         | 83 12                          |
| 27   | 36.60                       | 0.050    | 0.20          | 0.88      | 33                             | 881               | 72   | 14 000              | 1 452.4                    | 1967         | 84 08                          |
| 65   | 6.71                        | 0.046    | 0.25          | 0.80      | 80                             | 887               | 60   | 13 650              | 1 407.0                    | 1967         | 71 01 - ABAND 82 09            |
| 12   | 63.22                       | 0.070    | 0.18          | 0.83      | 59                             | 844               | 77   | 15 000              | 1 513.0                    | 1967         | 84 12 - GPP                    |
| 5    | 55.47                       | 0.046    | 0.14          | 0.89      | 37                             | 881               | 71   | 14 000              | 1 508.2                    | 1967         | 82 12 - SUSP 81 01             |
| 11   | 48.46                       | 0.069    | 0.09          | 0.83      | 54                             | 844               | 72   | 15 000              | 1 508.9                    | 1967         | 73 12                          |
| 11   | 28.01                       | 0.056    | 0.21          | 0.94      | 16                             | 892               | 66   | 14 070              | 1 467.8                    | 1967         | 70 02 - GPP                    |
| 11   | 39.50                       | 0.055    | 0.15          | 0.76      | 96                             | 834               | 79   | 15 860              | 1 575.3                    | 1967         | 73 08 - SUSP 84 07             |
| 11   | 14.33                       | 0.070    | 0.15          | 0.83      | 39                             | 860               | 71   | 14 270              | 1 500.2                    | 1967         | 68 11 - GPP                    |
| 30   | 28.10                       | 0.076    | 0.27          | 0.90      | 24                             | 881               | 68   | 14 270              | 1 460.7                    | 1967         | 84 09                          |
| 5    | 61.00                       | 0.080    | 0.15          | 0.85      | 48                             | 887               | 66   | 14 690              | 1 479.9                    | 1967         | 82 04                          |
| 15   | 52.10                       | 0.070    | 0.20          | 0.90      | 29                             | 881               | 69   | 14 281              | 1 470.7                    | 1967         | 82 10 - GPP                    |
| 18   | 20.88                       | 0.060    | 0.12          | 0.81      | 78                             | 855               | 71   | 14 380              | 1 562.7                    | 1967         | 73 10 - SUSP 73 08             |
| 12   | 10.36                       | 0.090    | 0.14          | 0.82      | 67                             | 855               | 71   | 14 100              | 1 530.1                    | 1968         | 70 01 - SUSP 72 01             |
| 42   | 13.45                       | 0.080    | 0.10          | 0.86      | 45                             | 855               | 70   | 14 820              | 1 503.9                    | 1968         | 82 07                          |
| 9    | 24.14                       | 0.058    | 0.25          | 0.85      | 57                             | 876               | 71   | 13 340              | 1 490.6                    | 1968         | 74 11 - SUSP 76 02             |
| 31   | 13.90                       | 0.075    | 0.12          | 0.88      | 30                             | 860               | 71   | 13 400              | 1 468.5                    | 1968         | 75 12 - SUSP 74 01             |
| 7    | 25.00                       | 0.073    | 0.13          | 0.90      | 25                             | 876               | 67   | 13 870              | 1 446.0                    | 1968         | 81 09                          |
| 3    | 45.30                       | 0.108    | 0.09          | 0.85      | 42                             | 860               | 69   | 14 530              | 1 480.1                    | 1969         | 81 12 - SUSP 84 06             |
| 7    | 64.95                       | 0.100    | 0.08          | 0.84      | 62                             | 887               | 71   | 13 120              | 1 522.2                    | 1969         | 73 08 - GPP                    |
| 16   | 38.10                       | 0.054    | 0.20          | 0.88      | 41                             | 881               | 70   | 12 700              | 1 502.7                    | 1968         | 73 02 - ABAND 82 09            |
| 9    | 24.50                       | 0.079    | 0.15          | 0.81      | 74                             | 860               | 72   | 13 870              | 1 507.2                    | 1967         | 78 12 - SUSP 83 09             |
| 17   | 21.50                       | 0.060    | 0.19          | 0.88      | 32                             | 881               | 72   | 14 290              | 1 493.8                    | 1969         | 83 12 - GPP                    |
| 3    | 61.63                       | 0.115    | 0.10          | 0.88      | 30                             | 870               | 67   | 13 480              | 1 454.8                    | 1969         | 84 12 - GPP                    |
| 13   | 27.71                       | 0.024    | 0.30          | 0.79      | 82                             | 855               | 71   | 13 220              | 1 463.6                    | 1971         | 74 12 - SUSP 74 04             |
| 25   | 24.99                       | 0.077    | 0.11          | 0.83      | 56                             | 855               | 67   | 14 940              | 1 516.7                    | 1972         | 72 10 - GPP                    |
| 65   | 24.08                       | 0.036    | 0.32          | 0.85      | 44                             | 844               | 36   | 17 960              | 1 553.9                    | 1973         | 74 05 - ABAND 73 09            |
| 6    | 15.90                       | 0.070    | 0.10          | 0.83      | 91                             | 837               | 80   | 13 676              | 1 536.8                    | 1982         | 84 12                          |
| 31   | 8.24                        | 0.070    | 0.10          | 0.87      | 37                             | 839               | 74   | 12 953              | 1 509.2                    | 1983         | 85 04                          |
| 64   | 8.30                        | 0.060    | 0.18          | 0.76      | 95                             | 834               | 62   | 18 035              | 1 502.5                    | 1983         | 84 01                          |
| 64   | 12.00                       | 0.070    | 0.14          | 0.83      | 54                             | 844               | 79   | 13 690              | 1 564.0                    | 1983         | 84 03 - SUSP 85 04             |
| 64   | 16.00                       | 0.070    | 0.11          | 0.88      | 35                             | 882               | 71   | 17 953              | 1 499.3                    | 1984         | 84 08                          |
| 64   | 15.80                       | 0.050    | 0.16          | 0.88      | 35                             | 878               | 73   | 6 000               | 1 469.8                    | 1984         | 84 11                          |
| 25   | 63.12                       | 0.071    | 0.11          | 0.86      | 46                             | 876               | 68   | 14 340              | 1 460.0                    | 1967         | 70 06 - GPP                    |
| 7    | 82.30                       | 0.077    | 0.16          | 0.87      | 50                             | 870               | 69   | 14 760              | 1 482.9                    | 1967         | 83 12 - ABAND 80 04            |
| 8    | 114.30                      | 0.074    | 0.16          | 0.83      | 60                             | 849               | 72   | 15 130              | 1 563.3                    | 1967         | 82 12 - SUSP 83 12             |
| 17   | 47.46                       | 0.070    | 0.12          | 0.80      | 71                             | 834               | 79   | 14 790              | 1 512.1                    | 1967         | 70 06 - GPP                    |
| 32   | 50.90                       | 0.071    | 0.12          | 0.85      | 52                             | 849               | 71   | 14 480              | 1 492.9                    | 1967         | 82 12 - GPP                    |
| 17   | 32.92                       | 0.085    | 0.24          | 0.88      | 35                             | 870               | 71   | 14 310              | 1 464.3                    | 1967         | 75 06 - GPP                    |
| 141  | 42.06                       | 0.047    | 0.28          | 0.87      | 36                             | 865               | 74   | 14 200              | 1 460.9                    | 1967         | 74 09 - GPP                    |
| 22   | 28.22                       | 0.050    | 0.25          | 0.83      | 59                             | 865               | 75   | 14 450              | 1 509.7                    | 1967         | 68 05 - SUSP 68 08             |
| 7    | 87.54                       | 0.100    | 0.10          | 0.83      | 66                             | 865               | 72   | 13 952              | 1 549.6                    | 1967         | 77 01                          |
| 17   | 23.40                       | 0.050    | 0.24          | 0.84      | 54                             | 865               | 71   | 13 760              | 1 421.9                    | 1967         | 81 12                          |
| 20   | 33.53                       | 0.050    | 0.20          | 0.86      | 46                             | 865               | 72   | 13 800              | 1 444.8                    | 1967         | 83 12 - GPP                    |
| 130  | 25.60                       | 0.036    | 0.32          | 0.83      | 48                             | 865               | 72   | 14 070              | 1 488.0                    | 1967         | 68 05 - SUSP 68 05             |
| 169  | 31.58                       | 0.062    | 0.19          | 0.83      | 64                             | 865               | 71   | 13 900              | 1 500.2                    | 1967         | 76 12 - GPP                    |
| 35   | 47.88                       | 0.087    | 0.19          | 0.88      | 35                             | 860               | 71   | 14 820              | 1 497.8                    | 1967         | 82 12 - GPP                    |
| 5    | 104.21                      | 0.074    | 0.17          | 0.85      | 54                             | 855               | 68   | 14 620              | 1 523.1                    | 1967         | 75 12 - GPP                    |
| 9    | 24.23                       | 0.100    | 0.17          | 0.89      | 30                             | 876               | 68   | 14 200              | 1 449.6                    | 1967         | 69 09 - GPP                    |
| 17   | 90.09                       | 0.079    | 0.16          | 0.86      | 42                             | 860               | 69   | 14 890              | 1 496.6                    | 1967         | 81 01                          |
| 15   | 30.00                       | 0.060    | 0.15          | 0.87      | 38                             | 870               | 70   | 14 690              | 1 464.6                    | 1967         | 85 12 - GPP                    |
| 25   | 58.00                       | 0.074    | 0.18          | 0.81      | 65                             | 834               | 77   | 15 030              | 1 527.0                    | 1967         | 70 06 - GPP                    |
| 64   | 30.70                       | 0.030    | 0.35          | 0.83      | 63                             | 865               | 71   | 13 790              | 1 440.2                    | 1967         | 83 12 - SUSP 83 01             |
| 28   | 23.79                       | 0.046    | 0.24          | 0.82      | 69                             | 876               | 66   | 13 760              | 1 434.1                    | 1967         | 83 12                          |
| 18   | 34.14                       | 0.080    | 0.25          | 0.83      | 33                             | 881               | 69   | 13 690              | 1 433.2                    | 1967         | 84 09                          |
| 12   | 36.27                       | 0.081    | 0.12          | 0.84      | 62                             | 865               | 61   | 13 870              | 1 446.9                    | 1967         | 75 08 - SUSP 84 06             |
| 11   | 74.83                       | 0.085    | 0.12          | 0.81      | 73                             | 855               | 72   | 14 520              | 1 512.4                    | 1967         | 82 12 - GPP                    |
| 7    | 53.07                       | 0.070    | 0.18          | 0.86      | 43                             | 870               | 68   | 14 030              | 1 495.7                    | 1967         | 81 12                          |
| 33   | 30.30                       | 0.040    | 0.30          | 0.85      | 76                             | 865               | 72   | 13 760              | 1 553.0                    | 1967         | 83 12 - GPP                    |
| 13   | 95.10                       | 0.087    | 0.12          | 0.86      | 45                             | 860               | 76   | 14 890              | 1 565.5                    | 1967         | 82 12 - GPP                    |
| 15   | 48.13                       | 0.061    | 0.20          | 0.90      | 35                             | 887               | 63   | 13 810              | 1 419.5                    | 1967         | 79 05 - GPP                    |
| 33   | 56.11                       | 0.070    | 0.12          | 0.89      | 30                             | 865               | 69   | 14 450              | 1 460.9                    | 1967         | 82 12 - GPP                    |
| 28   | 87.17                       | 0.071    | 0.11          | 0.83      | 58                             | 839               | 78   | 15 170              | 1 529.2                    | 1967         | 77 10 - GPP                    |

TABLE 2-4

| FIELD<br>POOL                | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                              | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                              |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                              | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| ZAMA 117-04W6<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER GG<br>WATER FLOOD  | 953.0                          | 0.08     | 0.03     | 76.2                           | 28.6                           | 105.0                          | 98.3                           | 6.7                                  |
| KEG RIVER HH                 | 127.0                          | 0.25     |          | 31.8                           |                                | 31.8                           | 30.7                           | 1.1                                  |
| KEG RIVER II                 | 280.0                          | 0.10     |          | 28.0                           |                                | 28.0                           | 12.3                           | 15.7                                 |
| KEG RIVER JJ                 | 110.0                          | 0.30     |          | 33.0                           |                                | 33.0                           | 26.1                           | 6.9                                  |
| KEG RIVER KK<br>WATER FLOOD  | 176.0                          | 0.25     | 0.15     | 44.0                           | 26.4                           | 70.4                           | 47.7                           | 22.7                                 |
| KEG RIVER LL                 | 150.0                          | 0.35     |          | 52.5                           |                                | 52.5                           | 42.3                           | 10.2                                 |
| KEG RIVER MM                 | 345.0                          | <0.01    |          | 2.6                            |                                | 2.6                            | 2.6                            |                                      |
| KEG RIVER NN                 | 636.0                          | 0.25     |          | 159.0                          |                                | 159.0                          | 116.5                          | 42.5                                 |
| KEG RIVER OO                 | 148.0                          | 0.40     |          | 59.2                           |                                | 59.2                           | 49.1                           | 10.1                                 |
| KEG RIVER PP                 | 763.0                          | 0.42     |          | 321.0                          |                                | 321.0                          | 157.0                          | 164.0                                |
| KEG RIVER QQ                 | 350.0                          | 0.30     |          | 105.0                          |                                | 105.0                          | 76.7                           | 28.3                                 |
| KEG RIVER RR                 | 795.0                          | 0.08     |          | 63.6                           |                                | 63.6                           | 51.1                           | 12.5                                 |
| KEG RIVER SS                 | 222.0                          | 0.35     |          | 77.9                           |                                | 77.9                           | 61.0                           | 16.9                                 |
| KEG RIVER TT                 | 397.0                          | 0.30     |          | 119.0                          |                                | 119.0                          | 104.3                          | 14.7                                 |
| KEG RIVER UU                 | 141.0                          | 0.25     |          | 35.3                           |                                | 35.3                           | 20.5                           | 14.8                                 |
| KEG RIVER VV                 | 350.0                          | 0.41     |          | 555.0                          |                                | 555.0                          | 349.1                          | 205.9                                |
| KEG RIVER WW                 | 318.0                          | 0.20     |          | 63.6                           |                                | 63.6                           | 56.4                           | 7.2                                  |
| KEG RIVER XX                 | 477.0                          | 0.25     |          | 119.0                          |                                | 119.0                          | 88.5                           | 30.5                                 |
| KEG RIVER YY<br>WATER FLOOD  | 663.0                          | 0.25     | 0.05     | 165.0                          | 33.2                           | 198.0                          | 55.3                           | 142.7                                |
| KEG RIVER ZZ                 | 238.0                          | <0.24    |          | 54.9                           |                                | 54.9                           | 54.9                           |                                      |
| KEG RIVER AAA                | 556.0                          | 0.35     |          | 195.0                          |                                | 195.0                          | 158.2                          | 36.8                                 |
| KEG RIVER BBB<br>WATER FLOOD | 207.0                          | 0.34     | 0.12     | 70.2                           | 24.8                           | 95.0                           | 64.6                           | 30.4                                 |
| KEG RIVER CCC                | 477.0                          | <0.01    |          | 2.8                            |                                | 2.8                            | 2.8                            |                                      |
| KEG RIVER DDD                | 318.0                          | 0.30     |          | 95.3                           |                                | 95.3                           | 63.4                           | 31.9                                 |
| KEG RIVER EEE                | 318.0                          | 0.12     |          | 38.1                           |                                | 38.1                           | 31.2                           | 6.9                                  |
| KEG RIVER FFF                | 169.0                          | 0.25     |          | 42.3                           |                                | 42.3                           | 23.3                           | 19.0                                 |
| KEG RIVER GGG                | 64.2                           | 0.24     |          | 15.4                           |                                | 15.4                           | 12.0                           | 3.4                                  |
| KEG RIVER HHH                | 318.0                          | 0.13     |          | 41.3                           |                                | 41.3                           | 38.4                           | 2.9                                  |
| KEG RIVER III                | 230.0                          | 0.25     |          | 57.5                           |                                | 57.5                           | 50.4                           | 7.1                                  |
| KEG RIVER JJJ                | 477.0                          | 0.36     |          | 172.0                          |                                | 172.0                          | 136.6                          | 35.4                                 |
| KEG RIVER KKK                | 397.0                          | 0.20     |          | 79.4                           |                                | 79.4                           | 66.2                           | 13.2                                 |
| KEG RIVER LLL                | 165.0                          | <0.10    |          | 15.1                           |                                | 15.1                           | 15.1                           |                                      |
| KEG RIVER MMM                | 500.0                          | 0.40     |          | 200.0                          |                                | 200.0                          | 130.6                          | 69.4                                 |
| KEG RIVER NNN                | 588.0                          | 0.35     |          | 207.0                          |                                | 207.0                          | 143.9                          | 63.1                                 |
| KEG RIVER OOO                | 524.0                          | 0.10     |          | 52.4                           |                                | 52.4                           | 45.7                           | 6.7                                  |
| KEG RIVER PPP                | 213.0                          | 0.25     |          | 53.2                           |                                | 53.2                           | 37.9                           | 15.3                                 |
| KEG RIVER QQQ                | 397.0                          | <0.11    |          | 42.2                           |                                | 42.2                           | 42.2                           |                                      |
| KEG RIVER RRR                | 636.0                          | 0.20     |          | 127.0                          |                                | 127.0                          | 119.1                          | 7.9                                  |
| KEG RIVER SSS                | 79.5                           | 0.30     |          | 23.8                           |                                | 23.8                           | 17.3                           | 6.5                                  |
| KEG RIVER TTT<br>WATER FLOOD | 127.0                          | 0.35     | 0.12     | 44.5                           | 15.3                           | 59.8                           | 48.3                           | 11.5                                 |
| KEG RIVER VVV                | 443.0                          | 0.15     |          | 66.4                           | ERSD                           | 66.4                           | 46.9                           | 19.5                                 |
| KEG RIVER WWW                | 393.0                          | <0.07    |          | 24.7                           |                                | 24.7                           | 24.7                           |                                      |
| KEG RIVER XXX                | 477.0                          | 0.08     |          | 38.0                           |                                | 38.0                           | 34.8                           | 3.2                                  |
| KEG RIVER YYY                | 264.0                          | 0.35     |          | 92.4                           |                                | 92.4                           | 69.0                           | 23.4                                 |
| KEG RIVER ZZZ                | 238.0                          | 0.16     |          | 38.1                           |                                | 38.1                           | 29.2                           | 8.9                                  |
| KEG RIVER A2A                | 341.0                          | 0.35     |          | 119.0                          |                                | 119.0                          | 87.1                           | 31.9                                 |
| KEG RIVER B2B                | 795.0                          | 0.35     |          | 278.0                          |                                | 278.0                          | 197.7                          | 80.3                                 |
| KEG RIVER C2C                | 165.0                          | <0.21    |          | 34.1                           |                                | 34.1                           | 34.1                           |                                      |
| KEG RIVER E2E                | 313.0                          | 0.30     |          | 93.9                           |                                | 93.9                           | 57.0                           | 36.9                                 |
| KEG RIVER F2F                | 310.0                          | <0.07    |          | 21.4                           |                                | 21.4                           | 21.4                           |                                      |
| KEG RIVER G2G                | 960.0                          | 0.13     |          | 125.0                          |                                | 125.0                          | 122.0                          | 3.0                                  |
| KEG RIVER H2H                | 305.0                          | <0.04    |          | 10.3                           |                                | 10.3                           | 10.3                           |                                      |
| KEG RIVER I2I                | 197.0                          | 0.30     |          | 59.1                           |                                | 59.1                           | 46.1                           | 13.0                                 |
| KEG RIVER J2J                | 286.0                          | 0.30     |          | 85.8                           |                                | 85.8                           | 63.0                           | 22.8                                 |
| KEG RIVER K2K                | 477.0                          | <0.02    |          | 6.5                            |                                | 6.5                            | 6.5                            |                                      |
| KEG RIVER L2L                | 143.0                          | <0.10    |          | 13.7                           |                                | 13.7                           | 13.7                           |                                      |
| KEG RIVER M2M                | 354.0                          | 0.35     |          | 124.0                          |                                | 124.0                          | 91.7                           | 32.3                                 |
| KEG RIVER N2N                | 461.0                          | 0.30     |          | 138.0                          |                                | 138.0                          | 123.8                          | 14.2                                 |
| KEG RIVER O2O                | 159.0                          | 0.20     |          | 31.8                           |                                | 31.8                           | 28.2                           | 3.6                                  |
| KEG RIVER P2P                | 350.0                          | 0.30     |          | 105.0                          |                                | 105.0                          | 78.9                           | 26.1                                 |
| KEG RIVER Q2Q                | 364.0                          | <0.12    |          | 42.7                           |                                | 42.7                           | 42.7                           |                                      |
| KEG RIVER R2R                | 255.0                          | 0.30     |          | 76.5                           |                                | 76.5                           | 8.3                            | 68.2                                 |
| KEG RIVER S2S                | 350.0                          | 0.35     |          | 122.0                          |                                | 122.0                          | 81.6                           | 40.4                                 |
| KEG RIVER T2T                | 91.9                           | 0.25     |          | 23.0                           |                                | 23.0                           | 15.6                           | 7.4                                  |
| KEG RIVER U2U                | 429.0                          | <0.16    |          | 66.3                           |                                | 66.3                           | 66.3                           |                                      |
| KEG RIVER V2V                | 124.0                          | 0.20     |          | 24.8                           |                                | 24.8                           | 5.6                            | 19.2                                 |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 55   | 41.92                       | 0.060    | 0.17          | 0.83      | 63                             | 865               | 73   | 14 380              | 1 485.6                    | 1967         | 83 12 - GPP                    |
| 21   | 42.43                       | 0.025    | 0.30          | 0.83      | 60                             | 860               | 71   | 13 790              | 1 469.7                    | 1967         | 77 12 - GPP                    |
| 22   | 25.30                       | 0.074    | 0.15          | 0.80      | 74                             | 849               | 78   | 13 930              | 1 561.2                    | 1967         | 85 12 - GPP                    |
| 15   | 29.30                       | 0.042    | 0.30          | 0.85      | 35                             | 865               | 71   | 13 790              | 1 452.4                    | 1967         | 85 07 - GPP                    |
| 4    | 86.87                       | 0.065    | 0.11          | 0.87      | 45                             | 865               | 71   | 14 510              | 1 538.3                    | 1967         | 82 12 - GPP                    |
| 7    | 25.32                       | 0.100    | 0.08          | 0.92      | 26                             | 881               | 64   | 14 030              | 1 428.0                    | 1967         | 83 12 - GPP                    |
| 64   | 6.10                        | 0.140    | 0.11          | 0.71      | 156                            | 825               | 81   | 14 910              | 1 524.0                    | 1967         | 85 12 - SUSP 84 02             |
| 20   | 36.97                       | 0.120    | 0.08          | 0.77      | 88                             | 829               | 76   | 15 130              | 1 553.0                    | 1967         | 82 12 - SUSP 83 08             |
| 16   | 46.33                       | 0.043    | 0.25          | 0.62      | 215                            | 829               | 76   | 15 130              | 1 555.1                    | 1967         | 85 08 - GPP                    |
| 15   | 97.11                       | 0.074    | 0.10          | 0.81      | 72                             | 829               | 80   | 15 410              | 1 550.5                    | 1967         | 70 06 - GPP                    |
| 13   | 53.64                       | 0.073    | 0.11          | 0.80      | 72                             | 829               | 78   | 14 820              | 1 536.5                    | 1967         | 75 12 - GPP                    |
| 57   | 31.39                       | 0.063    | 0.15          | 0.83      | 64                             | 865               | 71   | 13 510              | 1 451.5                    | 1967         | 83 12 - GPP                    |
| 3    | 113.60                      | 0.080    | 0.11          | 0.85      | 53                             | 855               | 72   | 14 940              | 1 528.6                    | 1967         | 68 01 - GPP                    |
| 23   | 42.98                       | 0.055    | 0.14          | 0.85      | 49                             | 865               | 73   | 13 790              | 1 479.2                    | 1967         | 83 12 - SUSP 85 07             |
| 21   | 28.74                       | 0.039    | 0.30          | 0.84      | 59                             | 865               | 70   | 13 790              | 1 598.1                    | 1967         | 70 06 - GPP                    |
| 26   | 91.74                       | 0.075    | 0.10          | 0.83      | 58                             | 855               | 77   | 14 930              | 1 509.4                    | 1967         | 84 12 - GPP                    |
| 16   | 45.11                       | 0.055    | 0.13          | 0.90      | 32                             | 898               | 63   | 14 170              | 1 443.5                    | 1967         | 82 12 - GPP                    |
| 13   | 67.30                       | 0.071    | 0.11          | 0.84      | 71                             | 860               | 71   | 14 790              | 1 501.4                    | 1967         | 70 02 - GPP - IS NO 9          |
| 26   | 60.96                       | 0.060    | 0.15          | 0.81      | 71                             | 844               | 71   | 14 620              | 1 521.6                    | 1967         |                                |
| 24   | 20.95                       | 0.110    | 0.12          | 0.49      | 331                            | 811               | 77   | 15 370              | 1 551.1                    | 1967         | 83 12 - SUSP 81 07             |
| 10   | 108.81                      | 0.074    | 0.10          | 0.79      | 74                             | 834               | 79   | 14 960              | 1 583.1                    | 1967         | 75 12 - GPP                    |
| 3    | 99.36                       | 0.105    | 0.13          | 0.83      | 57                             | 855               | 80   | 14 690              | 1 565.8                    | 1967         | 75 07 - GPP                    |
| 72   | 17.37                       | 0.065    | 0.28          | 0.81      | 65                             | 860               | 76   | 14 240              | 1 573.4                    | 1967         | 70 09 - WTR INJ 69 01          |
| 9    | 58.83                       | 0.076    | 0.15          | 0.90      | 33                             | 881               | 67   | 14 170              | 1 468.2                    | 1967         | 70 07 - GPP                    |
| 21   | 36.27                       | 0.064    | 0.22          | 0.85      | 52                             | 865               | 70   | 13 380              | 1 443.8                    | 1967         | 75 12 - GPP                    |
| 6    | 47.64                       | 0.085    | 0.20          | 0.87      | 35                             | 865               | 71   | 13 650              | 1 454.7                    | 1967         | 83 12 - GPP                    |
| 3    | 73.15                       | 0.045    | 0.35          | 0.89      | 45                             | 860               | 83   | 14 340              | 1 524.6                    | 1967         | 69 01 - GPP                    |
| 10   | 37.80                       | 0.115    | 0.10          | 0.83      | 59                             | 860               | 72   | 13 550              | 1 470.8                    | 1967         | 82 12 - SUSP 82 03             |
| 10   | 43.20                       | 0.080    | 0.25          | 0.89      | 38                             | 881               | 64   | 14 000              | 1 427.7                    | 1967         | 83 12 - GPP                    |
| 21   | 45.14                       | 0.070    | 0.20          | 0.88      | 30                             | 865               | 72   | 14 550              | 1 451.5                    | 1967         | 70 06 - GPP                    |
| 7    | 101.50                      | 0.080    | 0.11          | 0.83      | 45                             | 855               | 78   | 14 690              | 1 558.7                    | 1967         | 85 12 - GPP                    |
| 17   | 36.27                       | 0.046    | 0.30          | 0.83      | 62                             | 865               | 69   | 13 200              | 1 471.6                    | 1967         | 76 01 - SUSP 75 10             |
| 12   | 86.52                       | 0.070    | 0.20          | 0.86      | 47                             | 865               | 69   | 14 890              | 1 484.4                    | 1967         | 82 10 - GPP                    |
| 17   | 69.49                       | 0.073    | 0.15          | 0.80      | 72                             | 844               | 80   | 15 690              | 1 532.2                    | 1967         | 69 01 - GPP                    |
| 19   | 50.35                       | 0.074    | 0.19          | 0.93      | 28                             | 881               | 67   | 13 930              | 1 453.9                    | 1967         | 82 12 - GPP                    |
| 19   | 42.15                       | 0.040    | 0.20          | 0.83      | 60                             | 860               | 71   | 13 270              | 1 465.8                    | 1967         | 70 02 - GPP                    |
| 34   | 49.71                       | 0.040    | 0.30          | 0.85      | 49                             | 865               | 71   | 13 170              | 1 466.4                    | 1967         | 82 12 - SUSP 80 10             |
| 20   | 70.26                       | 0.077    | 0.17          | 0.70      | 145                            | 829               | 73   | 15 200              | 1 548.7                    | 1967         | 75 12 - GPP                    |
| 6    | 24.69                       | 0.080    | 0.25          | 0.83      | 41                             | 860               | 73   | 14 650              | 1 547.2                    | 1967         | 68 11 - GPP                    |
| 4    | 53.95                       | 0.080    | 0.10          | 0.87      | 43                             | 865               | 73   | 14 310              | 1 516.7                    | 1967         | 69 01 - GPP                    |
| 23   | 45.45                       | 0.063    | 0.19          | 0.83      | 67                             | 855               | 71   | 13 310              | 1 464.7                    | 1967         | 70 02 - GPP                    |
| 17   | 37.73                       | 0.080    | 0.15          | 0.90      | 34                             | 887               | 63   | 13 890              | 1 417.3                    | 1968         | 70 02 - WTR DISP 73 03         |
| 21   | 57.30                       | 0.059    | 0.23          | 0.87      | 42                             | 881               | 67   | 13 580              | 1 460.6                    | 1968         | 81 12 - SUSP 85 05             |
| 12   | 42.03                       | 0.074    | 0.16          | 0.86      | 43                             | 876               | 71   | 13 450              | 1 449.9                    | 1968         | 84 12 - GPP                    |
| 20   | 22.80                       | 0.070    | 0.17          | 0.90      | 28                             | 881               | 63   | 14 170              | 1 426.9                    | 1968         | 81 12 - GPP                    |
| 35   | 25.09                       | 0.060    | 0.20          | 0.81      | 74                             | 849               | 71   | 13 450              | 1 462.0                    | 1968         | 85 12 - GPP                    |
| 17   | 53.04                       | 0.120    | 0.15          | 0.85      | 56                             | 855               | 68   | 14 640              | 1 490.2                    | 1968         | 69 04 - GPP                    |
| 17   | 40.87                       | 0.040    | 0.25          | 0.81      | 71                             | 860               | 71   | 12 820              | 1 474.6                    | 1968         | 84 12 - SUSP 83 09             |
| 16   | 30.48                       | 0.085    | 0.17          | 0.90      | 32                             | 904               | 63   | 13 670              | 1 417.3                    | 1968         | 70 02 - GPP                    |
| 23   | 36.79                       | 0.055    | 0.24          | 0.86      | 46                             | 865               | 68   | 13 650              | 1 443.5                    | 1968         | 74 12 - SUSP 74 09             |
| 28   | 57.42                       | 0.085    | 0.13          | 0.81      | 71                             | 844               | 76   | 14 190              | 1 510.3                    | 1968         | 83 07 - GPP                    |
| 15   | 38.10                       | 0.078    | 0.17          | 0.85      | 52                             | 865               | 70   | 13 580              | 1 448.1                    | 1968         | 74 12 - SUSP 74 10             |
| 18   | 27.10                       | 0.065    | 0.20          | 0.77      | 95                             | 825               | 80   | 14 760              | 1 557.2                    | 1968         | 70 02 - GPP                    |
| 14   | 31.39                       | 0.087    | 0.14          | 0.86      | 47                             | 870               | 69   | 14 450              | 1 487.4                    | 1968         | 69 03 - GPP                    |
| 63   | 19.57                       | 0.054    | 0.20          | 0.89      | 37                             | 892               | 61   | 13 650              | 1 413.1                    | 1968         | 73 02 - SUSP 72 04             |
| 16   | 38.10                       | 0.040    | 0.30          | 0.83      | 66                             | 865               | 68   | 12 650              | 1 453.0                    | 1968         | 78 10 - SUSP 75 11             |
| 13   | 47.64                       | 0.075    | 0.15          | 0.90      | 38                             | 881               | 61   | 13 930              | 1 436.8                    | 1968         | 70 02 - GPP                    |
| 12   | 57.82                       | 0.094    | 0.15          | 0.85      | 59                             | 860               | 68   | 14 380              | 1 459.4                    | 1968         | 70 02 - GPP                    |
| 15   | 15.67                       | 0.100    | 0.14          | 0.79      | 84                             | 870               | 73   | 14 590              | 1 525.8                    | 1968         | 71 06 - GPP                    |
| 11   | 47.85                       | 0.094    | 0.16          | 0.88      | 38                             | 855               | 69   | 14 000              | 1 449.5                    | 1968         | 71 07 - SUSP 80 10             |
| 17   | 70.90                       | 0.045    | 0.20          | 0.82      | 66                             | 860               | 74   | 11 650              | 1 492.9                    | 1968         | 84 09 - GPP                    |
| 6    | 29.80                       | 0.080    | 0.12          | 0.72      | 230                            | 825               | 66   | 14 960              | 1 560.9                    | 1968         | 73 05 - GPP                    |
| 7    | 91.44                       | 0.080    | 0.11          | 0.83      | 50                             | 870               | 77   | 14 300              | 1 537.1                    | 1968         | 83 12 - SUSP 78 02             |
| 10   | 22.34                       | 0.075    | 0.11          | 0.88      | 35                             | 867               | 67   | 13 280              | 1 474.6                    | 1968         | 85 04 - GPP                    |
| 13   | 53.77                       | 0.105    | 0.13          | 0.90      | 26                             | 876               | 68   | 13 880              | 1 451.5                    | 1968         |                                |
| 13   | 24.90                       | 0.060    | 0.25          | 0.85      | 55                             | 865               | 71   | 13 130              | 1 434.4                    | 1968         |                                |

TABLE 2-4

| FIELD<br>POOL                | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                              | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                              |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                              | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| ZAMA 117-04W6<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER W2W                | 165.0                          | 0.25     |          | 41.3                           |                                | 41.3                           | 30.6                           | 10.7                                 |
| KEG RIVER X2X                | 547.0                          | 0.32     | 0.23     | 175.0                          | 126.0                          | 301.0                          | 229.2                          | 71.8                                 |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER Y2Y                | 79.5                           | <0.02    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| KEG RIVER Z2Z                | 477.0                          | 0.20     |          | 95.4                           |                                | 95.4                           | 70.9                           | 24.5                                 |
| KEG RIVER A3A                | 318.0                          | 0.14     |          | 44.5                           |                                | 44.5                           | 37.8                           | 6.7                                  |
| KEG RIVER B3B                | 251.0                          | <0.06    |          | 14.3                           |                                | 14.3                           | 14.3                           |                                      |
| KEG RIVER C3C                | 111.0                          | <0.23    |          | 25.3                           |                                | 25.3                           | 25.3                           |                                      |
| KEG RIVER D3D                | 257.0                          | 0.30     |          | 77.2                           |                                | 77.2                           | 63.2                           | 14.0                                 |
| KEG RIVER F3F                | 420.0                          | 0.15     |          | 63.0                           |                                | 63.0                           | 38.9                           | 24.1                                 |
| KEG RIVER G3G                | 106.0                          | 0.05     |          | 5.3                            |                                | 5.3                            | 4.8                            | 0.5                                  |
| KEG RIVER H3H                | 218.0                          | 0.40     |          | 87.2                           |                                | 87.2                           | 35.3                           | 51.9                                 |
| KEG RIVER I3I                | 636.0                          | 0.17     | 0.13     | 108.0                          | 82.7                           | 191.0                          | 112.4                          | 78.6                                 |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER J3J                | 222.0                          | 0.12     |          | 26.7                           |                                | 26.7                           | 26.7                           |                                      |
| KEG RIVER K3K                | 207.0                          | 0.20     | 0.10     | 41.3                           | 20.7                           | 62.0                           | 57.1                           | 4.9                                  |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER L3L                | 159.0                          | 0.20     | 0.10     | 31.8                           | 15.9                           | 47.7                           | 45.8                           | 1.9                                  |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER M3M                | 318.0                          | <0.03    |          | 8.2                            |                                | 8.2                            | 8.2                            |                                      |
| KEG RIVER N3N                | 302.0                          | <0.24    |          | 70.5                           |                                | 70.5                           | 70.5                           |                                      |
| KEG RIVER O3O                | 240.0                          | <0.06    |          | 13.9                           |                                | 13.9                           | 13.9                           |                                      |
| KEG RIVER P3P                | 477.0                          | 0.23     |          | 110.0                          |                                | 110.0                          | 78.3                           | 31.7                                 |
| KEG RIVER Q3Q                | 267.0                          | 0.15     |          | 40.0                           |                                | 40.0                           | 30.3                           | 9.7                                  |
| KEG RIVER R3R                | 233.0                          | 0.35     |          | 81.6                           |                                | 81.6                           | 65.0                           | 16.6                                 |
| KEG RIVER S3S                | 222.0                          | 0.35     |          | 77.7                           |                                | 77.7                           | 65.1                           | 12.6                                 |
| KEG RIVER T3T                | 243.0                          | <0.07    |          | 15.2                           |                                | 15.2                           | 15.2                           |                                      |
| KEG RIVER U3U                | 20.5                           | <0.26    |          | 5.3                            |                                | 5.3                            | 5.3                            |                                      |
| KEG RIVER V3V                | 7.9                            | 0.10     |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| KEG RIVER W3W                | 524.0                          | 0.26     | 0.09     | 136.0                          | 47.2                           | 183.0                          | 146.7                          | 36.3                                 |
| WATER FLOOD                  |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER X3X                | 253.0                          | 0.15     |          | 38.0                           |                                | 38.0                           | 3.9                            | 34.1                                 |
| KEG RIVER Y3Y                | 238.0                          | <0.06    |          | 12.2                           |                                | 12.2                           | 12.2                           |                                      |
| KEG RIVER Z3Z                | 477.0                          | 0.40     |          | 191.0                          |                                | 191.0                          | 133.3                          | 57.7                                 |
| KEG RIVER A4A                | 47.7                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| KEG RIVER B4B                | 63.6                           | <0.18    |          | 11.3                           |                                | 11.3                           | 11.3                           |                                      |
| KEG RIVER C4C                | 323.0                          | <0.13    |          | 41.0                           |                                | 41.0                           | 41.0                           |                                      |
| KEG RIVER D4D                | 140.0                          | <0.11    |          | 15.0                           |                                | 15.0                           | 15.0                           |                                      |
| KEG RIVER E4E                | 415.0                          | 0.10     |          | 41.5                           |                                | 41.5                           | 40.1                           | 1.4                                  |
| KEG RIVER F4F                | 79.5                           | 0.25     |          | 19.9                           |                                | 19.9                           | 15.8                           | 4.1                                  |
| KEG RIVER G4G                | 370.0                          | <0.09    |          | 30.6                           |                                | 30.6                           | 30.6                           |                                      |
| KEG RIVER H4H                | 381.0                          | 0.20     |          | 76.2                           |                                | 76.2                           | 46.6                           | 29.6                                 |
| KEG RIVER I4I                | 222.0                          | 0.18     |          | 40.0                           |                                | 40.0                           | 36.6                           | 3.4                                  |
| KEG RIVER J4J                | 397.0                          | <0.03    |          | 8.2                            |                                | 8.2                            | 8.2                            |                                      |
| KEG RIVER K4K                | 159.0                          | 0.20     |          | 31.8                           |                                | 31.8                           | 26.1                           | 5.7                                  |
| KEG RIVER L4L                | 466.0                          | 0.35     |          | 163.0                          |                                | 163.0                          | 114.4                          | 48.6                                 |
| KEG RIVER M4M                | 210.0                          | 0.20     |          | 42.0                           |                                | 42.0                           | 13.9                           | 28.1                                 |
| KEG RIVER N4N                | 191.0                          | 0.20     |          | 38.2                           |                                | 38.2                           | 28.7                           | 9.5                                  |
| KEG RIVER O4O                | 143.0                          | 0.14     |          | 20.0                           |                                | 20.0                           | 18.3                           | 1.7                                  |
| KEG RIVER P4P                | 159.0                          | 0.35     |          | 55.6                           |                                | 55.6                           | 40.2                           | 15.4                                 |
| KEG RIVER Q4Q                | 143.0                          | <0.14    |          | 19.5                           |                                | 19.5                           | 19.5                           |                                      |
| KEG RIVER R4R                | 267.0                          | 0.07     |          | 18.7                           |                                | 18.7                           | 18.7                           |                                      |
| KEG RIVER S4S                | 270.0                          | <0.07    |          | 17.5                           |                                | 17.5                           | 17.5                           |                                      |
| KEG RIVER T4T                | 318.0                          | 0.40     |          | 127.0                          |                                | 127.0                          | 103.5                          | 23.5                                 |
| KEG RIVER U4U                | 318.0                          | 0.35     |          | 111.0                          |                                | 111.0                          | 76.1                           | 34.9                                 |
| KEG RIVER V4V                | 95.3                           | 0.20     |          | 19.1                           |                                | 19.1                           | 10.7                           | 8.4                                  |
| KEG RIVER W4W                | 95.3                           | 0.30     |          | 28.6                           |                                | 28.6                           | 20.8                           | 7.8                                  |
| KEG RIVER X4X                | 424.0                          | 0.15     |          | 63.6                           |                                | 63.6                           | 36.3                           | 27.3                                 |
| KEG RIVER Y4Y                | 23.5                           | 0.30     |          | 7.1                            |                                | 7.1                            | 6.7                            | 0.4                                  |
| KEG RIVER Z4Z                | 232.0                          | 0.10     |          | 23.2                           |                                | 23.2                           | 20.3                           | 2.9                                  |
| KEG RIVER A5A                | 874.0                          | 0.35     |          | 307.0                          |                                | 307.0                          | 113.8                          | 193.2                                |
| KEG RIVER B5B                | 159.0                          | 0.40     |          | 63.6                           |                                | 63.6                           | 20.1                           | 43.5                                 |
| KEG RIVER C5C                | 259.0                          | 0.40     |          | 104.0                          |                                | 104.0                          | 56.0                           | 48.0                                 |
| KEG RIVER D5D                | 300.0                          | 0.35     |          | 105.0                          |                                | 105.0                          | 36.1                           | 68.9                                 |
| KEG RIVER E5E                | 425.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| KEG RIVER F5F                | 181.0                          | 0.20     |          | 36.2                           |                                | 36.2                           | 7.6                            | 28.6                                 |
| KEG RIVER G5G                | 350.0                          | 0.30     |          | 105.0                          |                                | 105.0                          | 13.2                           | 91.8                                 |
| KEG RIVER H5H                | 267.0                          | 0.01     |          | 2.7                            |                                | 2.7                            | 1.3                            | 1.4                                  |
| KEG RIVER I5I                | 322.0                          | 0.20     |          | 64.4                           |                                | 64.4                           | 32.2                           | 32.2                                 |
| KEG RIVER J5J                | 340.0                          | 0.25     |          | 85.0                           |                                | 85.0                           | 11.5                           | 73.5                                 |
| KEG RIVER K5K                | 612.0                          | 0.30     |          | 184.0                          |                                | 184.0                          | 4.2                            | 179.8                                |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 15   | 32.95                       | 0.054    | 0.25          | 0.83      | 59                             | 865               | 70   | 11 510              | 1 463.3                    | 1968         | 84 12 - GPP                    |
| 34   | 31.21                       | 0.075    | 0.13          | 0.80      | 78                             | 844               | 76   | 12 580              | 1 494.1                    | 1968         | 84 12 - GPP - 15 NO 9          |
| 5    | 21.58                       | 0.110    | 0.30          | 0.87      | 48                             | 860               | 71   | 11 910              | 1 521.9                    | 1968         | 69 11 - SUSP 69 10             |
| 17   | 30.23                       | 0.120    | 0.15          | 0.91      | 26                             | 887               | 64   | 13 490              | 1 428.6                    | 1968         | 83 12 - SUSP 84 08             |
| 35   | 29.50                       | 0.045    | 0.20          | 0.86      | 53                             | 865               | 72   | 13 530              | 1 454.2                    | 1967         | 74 12 - ABAND 79 01            |
| 17   | 36.27                       | 0.060    | 0.20          | 0.85      | 52                             | 865               | 70   | 12 310              | 1 454.5                    | 1968         | 83 12 - SUSP 81 01             |
| 8    | 25.27                       | 0.078    | 0.20          | 0.88      | 35                             | 887               | 71   | 14 210              | 1 498.7                    | 1968         | 70 09 - GPP                    |
| 16   | 35.17                       | 0.065    | 0.15          | 0.84      | 59                             | 860               | 74   | 14 020              | 1 459.4                    | 1969         | 80 09 - GPP                    |
| 15   | 28.83                       | 0.120    | 0.10          | 0.90      | 39                             | 898               | 61   | 12 940              | 1 400.9                    | 1969         | 85 12 - GPP                    |
| 11   | 16.95                       | 0.075    | 0.15          | 0.90      | 34                             | 887               | 63   | 13 500              | 1 406.7                    | 1969         | 84 09 - GPP                    |
| 5    | 91.74                       | 0.070    | 0.21          | 0.86      | 46                             | 865               | 71   | 15 090              | 1 535.0                    | 1969         | 82 12 - GPP                    |
| 53   | 30.36                       | 0.060    | 0.20          | 0.83      | 63                             | 865               | 72   | 13 000              | 1 433.2                    | 1968         | 83 12 - WTR DISP 75 07         |
| 8    | 31.21                       | 0.122    | 0.13          | 0.83      | 63                             | 860               | 71   | 13 670              | 1 456.3                    | 1967         | 75 08 - GPP                    |
| 8    | 43.74                       | 0.079    | 0.12          | 0.84      | 61                             | 865               | 71   | 13 700              | 1 454.5                    | 1967         | 75 08 - GPP                    |
| 12   | 37.83                       | 0.052    | 0.18          | 0.84      | 55                             | 865               | 71   | 13 330              | 1 442.9                    | 1967         | 70 01 - SUSP 71 09             |
| 19   | 24.78                       | 0.090    | 0.12          | 0.87      | 35                             | 865               | 71   | 13 460              | 1 435.9                    | 1969         | 84 12 - SUSP 84 12             |
| 10   | 58.30                       | 0.071    | 0.11          | 0.82      | 62                             | 865               | 69   | 13 460              | 1 501.7                    | 1969         | 77 04 - SUSP 77 01             |
| 9    | 55.41                       | 0.079    | 0.25          | 0.82      | 71                             | 855               | 68   | 13 410              | 1 476.8                    | 1967         | 82 12 - GPP                    |
| 10   | 80.13                       | 0.092    | 0.18          | 0.78      | 78                             | 855               | 72   | 14 620              | 1 583.1                    | 1968         | 73 05 - GPP                    |
| 16   | 42.98                       | 0.065    | 0.27          | 0.83      | 57                             | 870               | 71   | 12 350              | 1 435.6                    | 1969         | 82 12 - GPP                    |
| 9    | 44.80                       | 0.080    | 0.15          | 0.85      | 56                             | 860               | 67   | 13 800              | 1 451.5                    | 1969         | 83 12 - GPP                    |
| 11   | 23.16                       | 0.112    | 0.12          | 0.86      | 52                             | 887               | 77   | 13 650              | 1 481.3                    | 1969         | 75 12 - SUSP 74 10             |
| 14   | 55.53                       | 0.045    | 0.23          | 0.76      | 94                             | 834               | 73   | 14 910              | 1 533.8                    | 1969         | 73 02 - SUSP 72 05             |
| 1    | 29.57                       | 0.079    | 0.16          | 0.86      | 46                             | 860               | 71   | 9 360               | 1 500.2                    | 1969         | 71 01 - SUSP 70 09             |
| 3    | 8.53                        | 0.050    | 0.25          | 0.83      | 77                             | 855               | 76   | 14 580              | 1 646.5                    | 1969         | 82 12 - GPP                    |
| 7    | 73.00                       | 0.139    | 0.09          | 0.78      | 85                             | 855               | 69   | 13 400              | 1 520.3                    | 1969         | 85 04                          |
| 6    | 65.84                       | 0.092    | 0.17          | 0.84      | 60                             | 854               | 71   | 8 560               | 1 524.0                    | 1969         | 74 12 - SUSP 74 07             |
| 12   | 50.17                       | 0.055    | 0.20          | 0.89      | 30                             | 881               | 70   | 13 380              | 1 473.1                    | 1969         | 71 01 - GPP                    |
| 15   | 58.95                       | 0.086    | 0.15          | 0.76      | 94                             | 829               | 79   | 15 010              | 1 522.5                    | 1969         | 70 10 - SUSP 70 01             |
| 11   | 9.69                        | 0.068    | 0.15          | 0.81      | 60                             | 855               | 71   | 13 110              | 1 639.5                    | 1969         | 78 07 - SUSP 78 04             |
| 5    | 26.97                       | 0.077    | 0.25          | 0.84      | 58                             | 855               | 77   | 15 180              | 1 639.5                    | 1969         | 82 12 - SUSP 83 04             |
| 14   | 44.84                       | 0.080    | 0.17          | 0.79      | 89                             | 860               | 71   | 13 450              | 1 510.9                    | 1969         | 70 02 - ABAND 72 05            |
| 13   | 32.34                       | 0.050    | 0.20          | 0.81      | 69                             | 860               | 69   | 12 820              | 1 477.4                    | 1968         | 71 01                          |
| 20   | 30.48                       | 0.090    | 0.15          | 0.88      | 35                             | 870               | 69   | 11 420              | 1 449.6                    | 1970         | 85 08                          |
| 19   | 23.16                       | 0.030    | 0.30          | 0.86      | 46                             | 865               | 72   | 13 730              | 1 448.1                    | 1967         | 81 12 - SUSP 84 04             |
| 7    | 68.12                       | 0.100    | 0.10          | 0.88      | 35                             | 860               | 67   | 12 470              | 1 469.7                    | 1971         | 82 12 - SUSP 84 04             |
| 14   | 45.42                       | 0.084    | 0.18          | 0.90      | 29                             | 898               | 59   | 12 910              | 1 428.3                    | 1971         | 82 12 - SUSP 84 04             |
| 12   | 41.45                       | 0.065    | 0.22          | 0.90      | 38                             | 887               | 62   | 13 370              | 1 414.9                    | 1971         | 76 06 - WTR DISP 75 11         |
| 10   | 44.50                       | 0.110    | 0.09          | 0.89      | 41                             | 898               | 62   | 12 410              | 1 424.6                    | 1971         | 82 12 - GPP                    |
| 12   | 31.09                       | 0.060    | 0.18          | 0.89      | 41                             | 898               | 62   | 12 240              | 1 420.4                    | 1971         | 83 12                          |
| 30   | 30.48                       | 0.069    | 0.12          | 0.84      | 61                             | 855               | 70   | 13 220              | 1 525.8                    | 1971         | 81 09                          |
| 11   | 56.28                       | 0.061    | 0.33          | 0.83      | 64                             | 855               | 81   | 13 510              | 1 547.8                    | 1971         | 82 12 - GPP                    |
| 7    | 39.81                       | 0.086    | 0.15          | 0.90      | 35                             | 881               | 61   | 9 410               | 1 423.4                    | 1971         | 83 12 - SUSP 84 10             |
| 9    | 26.67                       | 0.075    | 0.12          | 0.90      | 35                             | 898               | 61   | 23 310              | 1 416.4                    | 1971         | 72 09                          |
| 6    | 39.35                       | 0.085    | 0.13          | 0.90      | 35                             | 892               | 61   | 13 820              | 1 414.6                    | 1971         | 83 12 - SUSP 83 04             |
| 10   | 22.82                       | 0.080    | 0.12          | 0.89      | 36                             | 887               | 63   | 13 510              | 1 420.7                    | 1971         | 82 12 - SUSP 80 03             |
| 9    | 38.71                       | 0.100    | 0.10          | 0.90      | 35                             | 904               | 61   | 13 450              | 1 419.1                    | 1971         | 85 12 - SUSP 84 05             |
| 10   | 31.09                       | 0.120    | 0.17          | 0.90      | 36                             | 887               | 62   | 21 860              | 1 418.5                    | 1972         | 75 05 - GPP                    |
| 7    | 88.70                       | 0.075    | 0.11          | 0.78      | 83                             | 829               | 77   | 15 750              | 1 547.5                    | 1972         | 84 12                          |
| 21   | 24.78                       | 0.080    | 0.11          | 0.84      | 59                             | 855               | 69   | 12 460              | 1 486.2                    | 1972         | 81 08 - SUSP 82 07             |
| 4    | 73.75                       | 0.047    | 0.21          | 0.87      | 47                             | 849               | 72   | 14 210              | 1 510.9                    | 1972         | 75 04 - GPP                    |
| 3    | 45.54                       | 0.100    | 0.15          | 0.87      | 47                             | 875               | 71   | 14 650              | 1 481.6                    | 1972         | 82 12                          |
| 12   | 52.55                       | 0.090    | 0.10          | 0.85      | 60                             | 865               | 45   | 7 490               | 1 519.7                    | 1972         | 77 04                          |
| 2    | 39.32                       | 0.044    | 0.18          | 0.83      | 58                             | 829               | 74   | 15 880              | 1 561.2                    | 1972         | 73 11 - SUSP 85 02             |
| 25   | 24.99                       | 0.055    | 0.12          | 0.78      | 89                             | 834               | 72   | 13 610              | 1 550.5                    | 1971         | 74 04 - GPP                    |
| 15   | 77.54                       | 0.099    | 0.08          | 0.85      | 301                            | 876               | 69   | 12 270              | 1 454.5                    | 1973         | 74 08 - GPP                    |
| 7    | 55.47                       | 0.065    | 0.16          | 0.78      | 89                             | 811               | 82   | 14 710              | 1 553.0                    | 1973         | 75 04                          |
| 7    | 44.81                       | 0.105    | 0.09          | 0.88      | 27                             | 875               | 69   | 5 320               | 1 444.6                    | 1974         | 83 06                          |
| 11   | 52.80                       | 0.075    | 0.14          | 0.80      | 71                             | 825               | 88   | 14 890              | 1 581.3                    | 1974         | 82 12 - SUSP 79 04             |
| 64   | 17.32                       | 0.060    | 0.23          | 0.83      | 69                             | 860               | 56   | 13 540              | 1 467.0                    | 1978         | 79 08 - GPP                    |
| 64   | 9.00                        | 0.050    | 0.25          | 0.84      | 50                             | 861               | 60   | 13 550              | 1 608.5                    | 1978         | 82 06 - GPP                    |
| 40   | 20.50                       | 0.060    | 0.20          | 0.89      | 52                             | 879               | 80   | 13 445              | 1 451.3                    | 1981         | 83 12 - GPP                    |
| 8    | 75.50                       | 0.070    | 0.20          | 0.79      | 76                             | 855               | 66   | 13 509              | 1 487.1                    | 1981         | 83 12 - GPP                    |
| 8    | 67.55                       | 0.100    | 0.15          | 0.70      | 120                            | 842               | 81   | 11 760              | 1 553.1                    | 1981         | 83 07                          |
| 19   | 51.30                       | 0.050    | 0.16          | 0.83      | 62                             | 860               | 51   | 12 885              | 1 508.8                    | 1982         | 83 04 - SUSP 85 04             |
| 64   | 28.50                       | 0.050    | 0.14          | 0.78      | 83                             | 831               | 78   | 14 984              | 1 586.8                    | 1982         |                                |

TABLE 2-4

| FIELD<br>POOL                       | 1                              | 2        | 3        | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                     | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                     |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                     | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| ZAMA 117-04W6<br>(CONTINUED)        |                                |          |          |                                |                                |                                |                                |                                      |
| KEG RIVER L5L                       | 285.0                          | 0.35     |          | 100.0                          |                                | 100.0                          | 22.0                           | 78.0                                 |
| KEG RIVER M5M                       | 223.0                          | 0.20     |          | 44.6                           |                                | 44.6                           | 8.3                            | 36.3                                 |
| KEG RIVER N5N                       | 374.0                          | 0.20     |          | 74.8                           |                                | 74.8                           | 8.3                            | 66.5                                 |
| KEG RIVER D5D                       | 206.0                          | 0.15     |          | 30.9                           |                                | 30.9                           | 2.6                            | 28.3                                 |
| KEG RIVER P5P                       | 3 730.0                        | 0.20     |          | 746.0                          |                                | 746.0                          | 7.8                            | 738.2                                |
| KEG RIVER Q5Q                       | 1 640.0                        | 0.30     |          | 492.0                          |                                | 492.0                          | 8.1                            | 483.9                                |
| KEG RIVER R5R                       | 485.0                          | 0.30     |          | 146.0                          |                                | 146.0                          | 4.4                            | 141.6                                |
| KEG RIVER S5S                       | 2 490.0                        | 0.30     |          | 747.0                          |                                | 747.0                          | 10.9                           | 736.1                                |
| KEG RIVER T5T                       | 694.0                          | 0.25     |          | 174.0                          |                                | 174.0                          | 1.5                            | 172.5                                |
| KEG RIVER U5U                       | 649.0                          | 0.20     |          | 130.0                          |                                | 130.0                          | 7.3                            | 122.7                                |
| KEG RIVER V5V                       | 1 580.0                        | 0.20     |          | 316.0                          |                                | 316.0                          | 6.5                            | 309.5                                |
| KEG RIVER W5W                       | 260.0                          | 0.15     |          | 39.0                           |                                | 39.0                           | 6.1                            | 32.9                                 |
| KEG RIVER X5X                       | 150.0                          | 0.20     |          | 30.0                           |                                | 30.0                           | 4.9                            | 25.1                                 |
| KEG RIVER Y5Y                       | 556.0                          | 0.20     |          | 111.0                          |                                | 111.0                          | 8.0                            | 103.0                                |
| KEG RIVER Z5Z                       | 929.0                          | 0.15     |          | 139.0                          |                                | 139.0                          | 6.7                            | 132.3                                |
| KEG RIVER A6A                       | 458.0                          | 0.20     |          | 91.6                           |                                | 91.6                           | 4.5                            | 87.1                                 |
| KEG RIVER B6B                       | 143.0                          | 0.30     |          | 42.9                           |                                | 42.9                           | 3.1                            | 39.8                                 |
| KEG RIVER H6H                       | 301.0                          | 0.25     |          | 75.3                           |                                | 75.3                           |                                | 75.3                                 |
| UNDEFINED AND<br>CONFIDENTIAL POOLS | 229 811.1                      |          |          | 35 884.2                       |                                | 35 884.2                       | 2 660.3                        | 33 338.1                             |
| TOTAL LIGHT-MEDIUM<br>CRUDE OIL     | 6 349 350.5                    |          |          | 1 386 443.0                    | 608 514.2                      | 1 995 531.9                    | 1 394 091.1                    | 601 555.0                            |

LIGHT-MEDIUM CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 13   | 26.00                       | 0.120    | 0.21          | 0.89      | 36                             | 894               | 61   | 6 135               | 1 435.0                    | 1982         | 84 06                          |
| 16   | 23.00                       | 0.080    | 0.15          | 0.89      | 36                             | 911               | 61   | 12 819              | 1 406.5                    | 1983         | 85 07                          |
| 64   | 15.30                       | 0.050    | 0.08          | 0.83      | 60                             | 853               | 73   | 13 682              | 1 527.0                    | 1983         | 84 01                          |
| 25   | 17.60                       | 0.060    | 0.12          | 0.89      | 31                             | 906               | 66   | 13 650              | 1 412.4                    | 1983         | 85 07                          |
| 64   | 55.00                       | 0.140    | 0.10          | 0.84      | 55                             | 32                | 71   | 13 965              | 1 456.6                    | 1984         | 84 08                          |
| 64   | 68.70                       | 0.060    | 0.25          | 0.83      | 60                             | 830               | 71   | 9 495               | 1 500.0                    | 1984         | 84 08                          |
| 64   | 21.00                       | 0.050    | 0.18          | 0.88      | 42                             | 854               | 69   | 15 891              | 1 567.5                    | 1984         | 84 08 - SUSP 85 07             |
| 64   | 54.60                       | 0.100    | 0.14          | 0.83      | 58                             | 858               | 74   | 14 232              | 1 629.7                    | 1983         | 84 08                          |
| 64   | 17.50                       | 0.080    | 0.10          | 0.86      | 43                             | 881               | 66   | 13 503              | 1 512.0                    | 1983         | 84 09                          |
| 64   | 29.80                       | 0.050    | 0.16          | 0.81      | 73                             | 856               | 69   | 14 900              | 1 533.8                    | 1983         | 84 11                          |
| 64   | 37.75                       | 0.080    | 0.12          | 0.93      | 51                             | 874               | 77   | 4 820               | 1 470.8                    | 1983         | 84 11                          |
| 64   | 16.60                       | 0.035    | 0.22          | 0.90      | 32                             | 901               | 52   | 13 447              | 1 425.7                    | 1983         | 85 01                          |
| 16   | 38.00                       | 0.040    | 0.24          | 0.82      | 64                             | 864               | 71   | 10 438              | 1 590.4                    | 1984         | 85 08                          |
| 64   | 25.60                       | 0.047    | 0.18          | 0.88      | 42                             | 858               | 69   | 6 723               | 1 462.2                    | 1984         | 85 02                          |
| 64   | 31.30                       | 0.065    | 0.14          | 0.83      | 74                             | 865               | 70   | 8 500               | 1 458.4                    | 1984         | 85 02                          |
| 64   | 23.70                       | 0.043    | 0.10          | 0.78      | 89                             | 855               | 71   | 13 015              | 1 528.7                    | 1984         | 85 02                          |
| 64   | 16.00                       | 0.023    | 0.26          | 0.82      | 64                             | 863               | 71   | 12 418              | 1 449.0                    | 1984         | 85 04                          |
| 64   | 16.50                       | 0.046    | 0.27          | 0.85      | 51                             | 885               | 66   | 8 400               | 1 424.3                    | 1972         | 85 11                          |

TABLE 2-4

| FIELD<br>POOL      | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                    | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                    |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                    | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| ALDERSON 015-11W4  |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A  | 107.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| UPPER MANNVILLE B  | 154.0                          | 0.07     |          | 10.8                           |                                | 10.8                           | 9.4                            | 1.4                                  |
| UPPER MANNVILLE C  | 455.0                          | 0.15     |          | 68.3                           |                                | 68.3                           | 27.7                           | 40.6                                 |
| UPPER MANNVILLE D  | 1 280.0                        | 0.15     |          | 192.0                          |                                | 192.0                          | 90.9                           | 101.1                                |
| UPPER MANNVILLE E  | 108.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.1                            | 0.1                                  |
| UPPER MANNVILLE F  | 205.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| UPPER MANNVILLE G  | 928.0                          | <0.01    |          | 1.7                            |                                | 1.7                            | 1.7                            |                                      |
| UPPER MANNVILLE I  | 376.0                          | 0.04     |          | 15.0                           |                                | 15.0                           | 10.4                           | 4.6                                  |
| UPPER MANNVILLE J  | 289.0                          | 0.05     |          | 14.5                           |                                | 14.5                           | 7.6                            | 6.9                                  |
| UPPER MANNVILLE L  | 180.0                          | 0.10     |          | 18.0                           |                                | 18.0                           | 13.3                           | 4.7                                  |
| UPPER MANNVILLE R  | 575.0                          | 0.15     |          | 86.2                           | ERSO                           | 86.2                           | 66.5                           | 19.7                                 |
| UPPER MANNVILLE S  | 500.0                          | 0.10     | 0.13     | 50.0                           | 65.0                           | 115.0                          | 36.6                           | 78.4                                 |
| WATER FLOOD        |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE T  | 186.0                          | 0.10     |          | 18.6                           |                                | 18.6                           | 10.2                           | 8.4                                  |
| UPPER MANNVILLE U  | 213.0                          | 0.05     |          | 10.7                           |                                | 10.7                           | 7.4                            | 3.3                                  |
| UPPER MANNVILLE Y  | 599.0                          | 0.10     |          | 59.9                           |                                | 59.9                           | 31.6                           | 28.3                                 |
| UPPER MANNVILLE Z  | 1 200.0                        | 0.10     | 0.20     | 120.0                          | 240.0                          | 360.0                          | 82.8                           | 277.2                                |
| WATER FLOOD        |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE AA | 147.0                          | 0.10     |          | 14.7                           |                                | 14.7                           | 7.7                            | 7.0                                  |
| UPPER MANNVILLE BB | 146.0                          | 0.10     |          | 14.6                           |                                | 14.6                           | 0.1                            | 14.5                                 |
| UPPER MANNVILLE CC | 99.8                           | 0.10     |          | 10.0                           |                                | 10.0                           | 5.5                            | 4.5                                  |
| UPPER MANNVILLE DD | 144.0                          | 0.10     |          | 14.4                           |                                | 14.4                           | 8.7                            | 5.7                                  |
| UPPER MANNVILLE EE | 127.4                          | 0.10     |          | 12.7                           |                                | 12.7                           | 4.4                            | 8.3                                  |
| UPPER MANNVILLE GG | 105.0                          | <0.02    |          | 1.7                            |                                | 1.7                            | 1.7                            |                                      |
| UPPER MANNVILLE HH | 124.0                          | 0.05     |          | 6.2                            |                                | 6.2                            | 3.8                            | 2.4                                  |
| UPPER MANNVILLE JJ | 106.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| UPPER MANNVILLE KK | 276.0                          | 0.10     |          | 27.6                           |                                | 27.6                           | 5.5                            | 22.1                                 |
| UPPER MANNVILLE LL | 87.0                           | 0.10     |          | 8.7                            |                                | 8.7                            | 4.3                            | 4.4                                  |
| UPPER MANNVILLE MM | 119.0                          | 0.05     |          | 6.0                            |                                | 6.0                            | 0.1                            | 5.9                                  |
| UPPER MANNVILLE NN | 109.0                          | 0.05     |          | 5.4                            |                                | 5.4                            | 1.3                            | 4.1                                  |
| UPPER MANNVILLE RR | 131.0                          | 0.01     |          | 1.3                            |                                | 1.3                            | 0.1                            | 1.2                                  |
| UPPER MANNVILLE SS | 600.0                          | 0.10     |          | 60.0                           |                                | 60.0                           | 32.0                           | 28.0                                 |
| UPPER MANNVILLE TT | 42.1                           | 0.10     |          | 4.2                            |                                | 4.2                            | 2.4                            | 1.8                                  |
| UPPER MANNVILLE UU | 113.0                          | 0.10     |          | 11.3                           |                                | 11.3                           | 0.2                            | 11.1                                 |
| UPPER MANNVILLE WW | 130.0                          | 0.10     |          | 13.0                           |                                | 13.0                           | 1.8                            | 11.2                                 |
| UPPER MANNVILLE XX | 41.0                           | 0.10     |          | 4.1                            |                                | 4.1                            | 3.4                            | 0.7                                  |
| UPPER MANNVILLE YY | 1 090.0                        | 0.05     |          | 54.5                           |                                | 54.5                           | 42.2                           | 12.3                                 |
| UPPER MANN H&ZZ    | 127.0                          | 0.03     |          | 3.8                            |                                | 3.8                            | 1.1                            | 2.7                                  |
| LOWER MANNVILLE A  | 626.0                          | 0.20     |          | 125.0                          |                                | 125.0                          | 110.6                          | 14.4                                 |
| LOWER MANNVILLE B  | 413.0                          | 0.23     |          | 95.0                           | ERSO                           | 95.0                           | 79.7                           | 15.3                                 |
| LOWER MANNVILLE D  | 699.0                          | 0.23     |          | 160.0                          | ERSO                           | 160.0                          | 148.8                          | 11.2                                 |
| LOWER MANNVILLE E  | 173.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LOWER MANNVILLE F  | 2 080.0                        | 0.07     |          | 146.0                          |                                | 146.0                          | 94.8                           | 51.2                                 |
| LOWER MANNVILLE G  | 691.0                          | 0.10     |          | 69.1                           |                                | 69.1                           | 53.5                           | 15.6                                 |
| LOWER MANNVILLE H  | 677.0                          | 0.07     |          | 47.4                           |                                | 47.4                           | 32.0                           | 15.4                                 |
| LOWER MANNVILLE J  | 817.0                          | 0.05     |          | 40.9                           |                                | 40.9                           | 31.5                           | 9.4                                  |
| LOWER MANNVILLE K  | 1 330.0                        | 0.10     |          | 133.0                          |                                | 133.0                          | 53.0                           | 80.0                                 |
| LOWER MANNVILLE L  | 238.0                          | 0.10     |          | 23.8                           |                                | 23.8                           | 11.9                           | 11.9                                 |
| LOWER MANNVILLE M  | 49.5                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LOWER MANNVILLE N  | 84.9                           | 0.10     |          | 8.5                            |                                | 8.5                            | 5.2                            | 3.3                                  |
| LOWER MANNVILLE O  | 411.0                          | 0.10     |          | 41.1                           |                                | 41.1                           | 11.6                           | 29.5                                 |
| LOWER MANNVILLE P  | 82.0                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| LOWER MANNVILLE Q  | 455.0                          | 0.05     |          | 22.8                           |                                | 22.8                           | 5.6                            | 17.2                                 |
| LOWER MANNVILLE R  | 59.1                           | 0.05     |          | 3.0                            |                                | 3.0                            | 0.2                            | 2.8                                  |
| LOWER MANNVILLE S  | 43.4                           | 0.10     |          | 4.3                            |                                | 4.3                            | 2.7                            | 1.6                                  |
| LOWER MANNVILLE U  | 111.0                          | 0.10     |          | 11.1                           |                                | 11.1                           | 4.0                            | 7.1                                  |
| LOWER MANNVILLE W  | 261.0                          | 0.05     |          | 13.1                           |                                | 13.1                           | 3.5                            | 9.6                                  |
| LOWER MANNVILLE X  | 165.0                          | 0.10     |          | 16.5                           |                                | 16.5                           | 6.8                            | 9.7                                  |
| LOWER MANNVILLE Y  | 84.2                           | 0.10     |          | 8.4                            |                                | 8.4                            | 2.4                            | 6.0                                  |
| LOWER MANNVILLE Z  | 288.0                          | 0.10     |          | 28.8                           |                                | 28.8                           | 12.7                           | 16.1                                 |
| LOWER MANNVILLE AA | 604.0                          | 0.03     |          | 18.1                           |                                | 18.1                           | 2.6                            | 15.5                                 |
| LOWER MANNVILLE BB | 572.0                          | 0.05     |          | 28.6                           |                                | 28.6                           | 11.1                           | 17.5                                 |
| LOWER MANNVILLE CC | 185.0                          | 0.15     |          | 27.8                           |                                | 27.8                           | 18.3                           | 9.5                                  |
| LOWER MANNVILLE DD | 94.1                           | 0.10     |          | 9.4                            |                                | 9.4                            | 0.9                            | 8.5                                  |
| LOWER MANNVILLE EE | 102.0                          | 0.05     |          | 5.1                            |                                | 5.1                            | 0.2                            | 4.9                                  |
| LOWER MANNVILLE FF | 26.5                           | 0.10     |          | 2.7                            |                                | 2.7                            | 1.3                            | 1.4                                  |
| LOWER MANNVILLE GG | 92.0                           | 0.05     |          | 4.6                            |                                | 4.6                            | 0.1                            | 4.5                                  |
| LOWER MANNVILLE HH | 483.0                          | 0.05     |          | 24.2                           |                                | 24.2                           | 5.2                            | 19.0                                 |
| LOWER MANNVILLE II | 68.4                           | 0.05     |          | 3.4                            |                                | 3.4                            | 0.8                            | 2.6                                  |
| LOWER MANNVILLE JJ | 210.0                          | 0.05     |          | 10.5                           |                                | 10.5                           | 2.3                            | 8.2                                  |
| LOWER MANNVILLE KK | 243.0                          | 0.05     |          | 12.2                           |                                | 12.2                           | 0.1                            | 12.1                                 |
| LOWER MANNVILLE LL | 99.5                           | 0.10     |          | 10.0                           |                                | 10.0                           | 1.7                            | 8.3                                  |

HEAVY CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 65   | 1.22                        | 0.220    | 0.30          | 0.88      | 41                             | 910               | 32   | 11 500              | 991.8                      | 1970         | 70 01 - SUSP 70 11             |
| 65   | 1.52                        | 0.240    | 0.26          | 0.88      | 41                             | 946               | 32   | 10 900              | 994.3                      | 1969         | 80 12 - GPP                    |
| 253  | 1.14                        | 0.230    | 0.22          | 0.88      | 50                             | 928               | 30   | 11 090              | 1 014.2                    | 1971         | 85 12                          |
| 358  | 2.89                        | 0.220    | 0.38          | 0.91      | 54                             | 898               | 33   | 10 560              | 952.5                      | 1970         | 85 12                          |
| 64   | 1.52                        | 0.180    | 0.31          | 0.88      | 54                             | 874               | 34   | 11 420              | 984.8                      | 1971         | 82 12 - SUSP 82 08             |
| 65   | 2.44                        | 0.230    | 0.36          | 0.88      | 43                             | 965               | 32   | 10 860              | 987.2                      | 1972         | 78 03 - SUSP 78 01             |
| 65   | 11.58                       | 0.210    | 0.33          | 0.88      | 53                             | 898               | 32   | 11 340              | 1 021.4                    | 1973         | 83 12 - SUSP 83 10             |
| 170  | 1.81                        | 0.190    | 0.27          | 0.88      | 50                             | 876               | 31   | 10 870              | 979.9                      | 1973         | 85 12 - GPP                    |
| 64   | 4.31                        | 0.170    | 0.30          | 0.88      | 57                             | 921               | 31   | 11 270              | 1 050.3                    | 1976         | 85 12                          |
| 64   | 2.00                        | 0.200    | 0.20          | 0.88      | 53                             | 865               | 34   | 10 955              | 987.9                      | 1972         | 83 06                          |
| 64   | 5.48                        | 0.230    | 0.20          | 0.89      | 72                             | 890               | 31   | 11 030              | 1 030.1                    | 1978         | 85 10                          |
| 60   | 4.30                        | 0.270    | 0.17          | 0.86      | 99                             | 887               | 31   | 11 070              | 1 027.9                    | 1978         | 84 03 - GPP                    |
| 83   | 1.60                        | 0.210    | 0.23          | 0.87      |                                | 887               | 28   | 9 970               | 1 015.7                    | 1979         | 84 07 - GPP                    |
| 64   | 3.00                        | 0.180    | 0.30          | 0.88      | 58                             | 900               | 30   | 10 424              | 1 000.2                    | 1980         | 80 05                          |
| 32   | 10.90                       | 0.260    | 0.25          | 0.88      | 69                             | 882               | 28   | 11 315              | 1 032.9                    | 1980         | 83 09                          |
| 117  | 6.21                        | 0.240    | 0.15          | 0.81      | 39                             | 891               | 33   | 11 376              | 1 024.0                    | 1979         | 85 02                          |
| 32   | 3.40                        | 0.220    | 0.30          | 0.88      | 68                             | 887               | 34   | 11 060              | 1 026.6                    | 1978         | 81 05                          |
| 32   | 3.00                        | 0.220    | 0.23          | 0.90      | 48                             | 925               | 31   | 9 698               | 1 018.0                    | 1980         | 81 07                          |
| 48   | 1.30                        | 0.230    | 0.21          | 0.88      | 62                             | 897               | 30   | 10 650              | 1 036.0                    | 1980         | 82 04                          |
| 65   | 2.00                        | 0.180    | 0.30          | 0.88      | 45                             |                   | 34   | 10 154              | 1 011.5                    | 1980         | 83 12                          |
| 32   | 2.00                        | 0.260    | 0.23          | 0.88      | 48                             |                   | 32   | 10 506              | 1 014.0                    | 1980         | 81 09                          |
| 32   | 3.60                        | 0.160    | 0.35          | 0.88      | 68                             | 888               | 31   | 11 483              | 1 029.4                    | 1980         | 83 12 - SUSP 81 10             |
| 64   | 1.80                        | 0.170    | 0.28          | 0.88      | 41                             | 904               | 35   | 10 833              | 1 012.9                    | 1974         | 82 02                          |
| 32   | 2.50                        | 0.200    | 0.25          | 0.88      | 43                             | 865               | 28   | 10 177              | 995.0                      | 1981         | 83 12 - SUSP 81 12             |
| 96   | 2.30                        | 0.200    | 0.29          | 0.88      | 49                             | 868               | 31   | 11 320              | 994.4                      | 1981         | 83 06 - GPP                    |
| 16   | 4.00                        | 0.220    | 0.30          | 0.88      | 50                             | 930               | 32   | 10 096              | 995.0                      | 1982         | 85 12                          |
| 16   | 6.50                        | 0.200    | 0.35          | 0.88      | 51                             | 934               | 32   | 10 315              | 965.0                      | 1982         | 83 06 - SUSP 84 02             |
| 16   | 4.70                        | 0.220    | 0.25          | 0.88      | 52                             | 925               | 29   | 10 828              | 1 026.0                    | 1981         | 84 02 - GPP                    |
| 32   | 4.30                        | 0.180    | 0.40          | 0.88      | 50                             | 888               | 31   | 8 190               | 990.2                      | 1983         | 85 12                          |
| 92   | 6.90                        | 0.150    | 0.30          | 0.90      | 39                             | 885               | 33   | 11 108              | 1 029.7                    | 1979         | 85 12                          |
| 16   | 2.50                        | 0.180    | 0.35          | 0.90      | 39                             | 885               | 33   | 11 051              | 1 023.8                    | 1979         | 83 12                          |
| 32   | 2.00                        | 0.250    | 0.20          | 0.88      | 50                             | 892               | 29   | 9 825               | 1 017.3                    | 1983         | 84 10 - SUSP 84 10             |
| 48   | 2.29                        | 0.220    | 0.39          | 0.88      | 50                             | 895               | 28   | 9 372               | 961.6                      | 1984         | 85 08                          |
| 16   | 2.70                        | 0.180    | 0.40          | 0.88      | 50                             | 871               | 30   | 7 200               | 974.1                      | 1984         | 85 01                          |
| 65   | 8.23                        | 0.300    | 0.20          | 0.85      | 57                             | 898               | 32   | 11 163              | 1 008.9                    | 1971         | 85 02 - GPP                    |
| 64   | 1.82                        | 0.202    | 0.40          | 0.90      | 27                             | 946               | 32   | 11 916              | 961.8                      | 1974         | 85 06 - SUSP 85 06             |
| 228  | 2.56                        | 0.174    | 0.30          | 0.88      | 41                             | 904               | 32   | 10 200              | 924.8                      | 1962         | 83 12 - GPP                    |
| 134  | 2.72                        | 0.210    | 0.40          | 0.90      | 41                             | 904               | 31   | 10 430              | 945.8                      | 1964         | 83 12 - GPP                    |
| 298  | 2.07                        | 0.210    | 0.40          | 0.90      | 41                             | 904               | 29   | 10 500              | 942.1                      | 1964         | 77 12 - GPP                    |
| 65   | 2.74                        | 0.170    | 0.35          | 0.88      | 41                             | 881               | 32   | 11 030              | 1 008.6                    | 1970         | 71 03 - ABAND 71 10            |
| 476  | 2.94                        | 0.260    | 0.35          | 0.88      | 53                             | 876               | 30   | 10 490              | 976.3                      | 1971         | 79 12 - GPP                    |
| 65   | 6.71                        | 0.270    | 0.33          | 0.88      | 53                             | 876               | 54   | 10 420              | 966.2                      | 1971         | 72 07 - GPP                    |
| 65   | 6.10                        | 0.300    | 0.35          | 0.88      | 54                             | 904               | 32   | 10 480              | 963.5                      | 1969         | 85 12 - GPP                    |
| 128  | 4.63                        | 0.224    | 0.30          | 0.88      | 53                             | 855               | 36   | 11 280              | 1 026.9                    | 1972         | 82 12                          |
| 266  | 3.43                        | 0.267    | 0.36          | 0.85      | 59                             | 898               | 29   | 10 540              | 973.5                      | 1977         | 84 12                          |
| 64   | 3.50                        | 0.169    | 0.30          | 0.90      | 60                             | 892               | 29   | 10 540              | 961.3                      | 1979         | 85 06 - GPP                    |
| 32   | 2.00                        | 0.150    | 0.40          | 0.86      | 64                             | 888               | 35   | 9 881               | 1 052.0                    | 1979         | 83 12 - SUSP 80 08             |
| 32   | 2.10                        | 0.210    | 0.32          | 0.88      | 58                             | 888               | 30   | 10 100              | 1 047.7                    | 1979         | 82 02                          |
| 192  | 1.81                        | 0.190    | 0.31          | 0.90      | 40                             | 912               | 32   | 10 655              | 968.8                      | 1980         | 83 05                          |
| 64   | 1.80                        | 0.160    | 0.50          | 0.89      | 50                             | 912               | 31   | 11 728              | 985.3                      | 1970         | 85 12 - SUSP 82 07             |
| 32   | 13.20                       | 0.210    | 0.43          | 0.90      | 34                             | 939               | 34   | 11 192              | 1 016.9                    | 1980         | 81 09                          |
| 16   | 3.60                        | 0.190    | 0.40          | 0.90      |                                | 939               | 34   | 10 421              | 1 024.8                    | 1981         | 82 03 - SUSP 83 05             |
| 32   | 2.00                        | 0.110    | 0.30          | 0.88      | 58                             | 878               | 29   | 10 678              | 1 049.5                    | 1981         | 82 03                          |
| 16   | 5.70                        | 0.190    | 0.29          | 0.90      | 40                             | 914               | 34   | 11 177              | 1 050.4                    | 1981         | 84 10 - GPP                    |
| 32   | 8.00                        | 0.210    | 0.46          | 0.90      | 41                             | 923               | 28   | 10 238              | 961.0                      | 1981         | 82 09                          |
| 32   | 6.60                        | 0.160    | 0.44          | 0.87      | 65                             | 890               | 31   | 9 950               | 1 043.4                    | 1981         | 84 11                          |
| 16   | 5.00                        | 0.180    | 0.35          | 0.90      | 41                             | 897               | 31   | 10 969              | 1 029.9                    | 1982         | 82 12                          |
| 128  | 2.49                        | 0.176    | 0.41          | 0.90      | 41                             | 917               | 31   | 10 367              | 937.3                      | 1982         | 84 12                          |
| 64   | 7.53                        | 0.220    | 0.40          | 0.95      | 24                             | 930               | 33   | 10 411              | 963.7                      | 1982         | 85 12                          |
| 48   | 8.77                        | 0.220    | 0.35          | 0.95      | 19                             | 908               | 32   | 10 374              | 973.3                      | 1982         | 85 01                          |
| 64   | 2.67                        | 0.180    | 0.34          | 0.91      | 38                             | 899               | 33   | 9 839               | 990.5                      | 1981         | 85 12 - GPP                    |
| 32   | 4.43                        | 0.150    | 0.48          | 0.85      | 67                             | 875               | 32   | 10 103              | 1 032.0                    | 1982         | 84 11 - GPP                    |
| 16   | 6.20                        | 0.190    | 0.40          | 0.90      | 40                             | 933               | 31   | 7 548               | 974.3                      | 1982         | 83 05                          |
| 32   | 1.00                        | 0.150    | 0.35          | 0.85      | 67                             | 875               | 32   | 11 162              | 1 042.0                    | 1982         | 85 12                          |
| 32   | 2.20                        | 0.220    | 0.34          | 0.90      | 42                             | 916               | 32   | 8 862               | 966.1                      | 1982         | 83 06 - SUSP 84 02             |
| 96   | 3.35                        | 0.280    | 0.39          | 0.88      | 47                             | 904               | 34   | 10 025              | 944.1                      | 1982         | 84 11                          |
| 16   | 3.30                        | 0.240    | 0.40          | 0.90      | 39                             | 969               | 34   | 9 500               | 939.2                      | 1982         | 83 06 - SUSP 85 02             |
| 16   | 13.00                       | 0.190    | 0.41          | 0.90      | 41                             | 933               | 33   | 10 415              | 973.1                      | 1982         | 83 07                          |
| 32   | 8.50                        | 0.178    | 0.43          | 0.88      | 50                             | 907               | 33   | 10 041              | 950.3                      | 1983         | 83 11                          |
| 32   | 3.60                        | 0.160    | 0.40          | 0.90      | 41                             | 910               | 28   | 10 142              | 934.3                      | 1982         | 83 12                          |

TABLE 2-4

| FIELD<br>POOL                    | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| ALDERSON 015-11W4<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE MM               | 544.0                          | 0.10     |          | 54.4                           |                                | 54.4                           | 5.1                            | 49.3                                 |
| LOWER MANNVILLE NN               | 165.0                          | 0.10     |          | 16.5                           |                                | 16.5                           | 1.8                            | 14.7                                 |
| LOWER MANNVILLE OD               | 46.7                           | 0.10     |          | 4.7                            |                                | 4.7                            | 0.4                            | 4.3                                  |
| LOWER MANNVILLE PP               | 148.0                          | 0.02     |          | 3.0                            |                                | 3.0                            | 0.6                            | 2.4                                  |
| LOWER MANNVILLE QQ               | 760.0                          | 0.10     |          | 76.0                           |                                | 76.0                           | 22.8                           | 53.2                                 |
| LOWER MANNVILLE SS               | 23.2                           | 0.10     |          | 2.3                            |                                | 2.3                            | 2.1                            | 0.2                                  |
| LOWER MANNVILLE TT               | 56.4                           | 0.10     |          | 5.6                            |                                | 5.6                            | 4.1                            | 1.5                                  |
| LOWER MANNVILLE UU               | 114.0                          | 0.03     |          | 3.4                            |                                | 3.4                            | 0.3                            | 3.1                                  |
| LOWER MANNVILLE VV               | 103.0                          | 0.10     |          | 10.3                           |                                | 10.3                           | 3.0                            | 7.3                                  |
| LOWER MANNVILLE WW               | 67.3                           | 0.10     |          | 6.7                            |                                | 6.7                            |                                | 6.7                                  |
| LOWER MANNVILLE XX               | 43.4                           | 0.10     |          | 4.3                            |                                | 4.3                            | 0.4                            | 3.9                                  |
| LOWER MANNVILLE YY               | 41.8                           | 0.10     |          | 4.2                            |                                | 4.2                            | 0.3                            | 3.9                                  |
| LOWER MANNVILLE ZZ               | 76.0                           | 0.10     |          | 7.6                            |                                | 7.6                            |                                | 7.6                                  |
| LOWER MANNVILLE AAA              | 391.0                          | 0.10     |          | 39.1                           |                                | 39.1                           | 4.2                            | 34.9                                 |
| LOWER MANNVILLE BBB              | 31.7                           | 0.10     |          | 3.2                            |                                | 3.2                            | 0.9                            | 2.3                                  |
| LOWER MANNVILLE CCC              | 54.1                           | 0.10     |          | 5.4                            |                                | 5.4                            | 2.4                            | 3.0                                  |
| LOWER MANNVILLE DDD              | 28.6                           | 0.10     |          | 2.9                            |                                | 2.9                            | 1.5                            | 1.4                                  |
| LOWER MANNVILLE EEE              | 10.3                           | 0.10     |          | 1.0                            |                                | 1.0                            | 0.3                            | 0.7                                  |
| LOWER MANNVILLE FFF              | 44.4                           | 0.10     |          | 4.4                            |                                | 4.4                            | 0.3                            | 4.1                                  |
| LOWER MANNVILLE HHH              | 32.5                           | 0.10     |          | 3.3                            |                                | 3.3                            | 0.9                            | 2.4                                  |
| LOWER MANNVILLE III              | 25.7                           | 0.10     |          | 2.6                            |                                | 2.6                            | 0.4                            | 2.2                                  |
| LOWER MANNVILLE JJJ              | 147.0                          | 0.10     |          | 14.7                           |                                | 14.7                           | 3.6                            | 11.1                                 |
| LOWER MANNVILLE KKK              | 27.9                           | 0.10     |          | 2.8                            |                                | 2.8                            | 0.7                            | 2.1                                  |
| LOWER MANNVILLE LLL              | 640.0                          | 0.05     |          | 32.0                           |                                | 32.0                           | 5.4                            | 26.6                                 |
| LOWER MANNVILLE MMM              | 76.0                           | 0.05     |          | 3.8                            |                                | 3.8                            | 0.7                            | 3.1                                  |
| LOWER MANNVILLE NNN              | 101.0                          | 0.05     |          | 5.1                            |                                | 5.1                            |                                | 5.1                                  |
| LOWER MANNVILLE ODO              | 13.2                           | 0.10     |          | 1.3                            |                                | 1.3                            |                                | 1.3                                  |
| LOWER MANNVILLE PPP              | 14.1                           | 0.10     |          | 1.4                            |                                | 1.4                            |                                | 1.4                                  |
| LOWER MANNVILLE QQQ              | 51.3                           | 0.10     |          | 5.1                            |                                | 5.1                            |                                | 5.1                                  |
| LOWER MANNVILLE RRR              | 46.3                           | 0.10     |          | 4.6                            |                                | 4.6                            |                                | 4.6                                  |
| LOWER MANNVILLE UUU              | 180.0                          | 0.10     |          | 18.0                           |                                | 18.0                           |                                | 18.0                                 |
| LOWER MANNVILLE ZZZ              | 105.0                          | 0.10     |          | 10.5                           |                                | 10.5                           | 9.5                            | 1.0                                  |
| LOWER MANNVILLE A2A              | 562.0                          | 0.15     |          | 84.3                           |                                | 84.3                           | 70.5                           | 13.8                                 |
| LOWER MANNVILLE B2B              | 337.0                          | 0.10     |          | 33.7                           |                                | 33.7                           | 18.5                           | 15.2                                 |
| DETRITAL A                       | 178.0                          | 0.10     |          | 17.8                           |                                | 17.8                           | 3.7                            | 14.1                                 |
| DETRITAL B                       | 151.0                          | 0.10     |          | 15.1                           |                                | 15.1                           | 4.4                            | 10.7                                 |
| DETRITAL C                       | 77.4                           | 0.10     |          | 7.7                            |                                | 7.7                            | 1.7                            | 6.0                                  |
| DETRITAL F                       | 143.0                          | <0.03    |          | 3.6                            |                                | 3.6                            | 3.6                            |                                      |
| ALEXANDER 056-27W4               |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ D                   | 175.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| BASAL QUARTZ E                   | 126.0                          | 0.08     |          | 10.1                           |                                | 10.1                           | 6.3                            | 3.8                                  |
| WABAMUN B                        | 513.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| WABAMUN C                        | 41.9                           | 0.10     |          | 4.2                            |                                | 4.2                            | 0.8                            | 3.4                                  |
| ALEXIS 055-04W5                  |                                |          |          |                                |                                |                                |                                |                                      |
| OSTRACOD A                       | 159.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| OSTRACOD B                       | 296.0                          | 0.03     |          | 8.9                            |                                | 8.9                            | 7.6                            | 1.3                                  |
| BANFF A                          | 7 580.0                        | 0.15     |          | 1 140.0                        |                                | 1 140.0                        | 327.2                          | 812.8                                |
| ALTARIO 035-01W4                 |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                    | 86.6                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| GLAUCONITIC B                    | 72.4                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| GLAUCONITIC C                    | 56.0                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| AMISK 041-08W4                   |                                |          |          |                                |                                |                                |                                |                                      |
| BLAIRMORE A                      | 550.0                          | 0.03     |          | 46.5                           |                                | 46.5                           | 29.7                           | 16.8                                 |
| BLAIRMORE B                      | 952.0                          | 0.02     |          | 19.0                           |                                | 19.0                           | 11.6                           | 7.4                                  |
| BLAIRMORE C                      | 455.0                          | 0.05     |          | 22.8                           |                                | 22.8                           | 3.1                            | 19.7                                 |
| UPPER MANNVILLE I                | 43.7                           | <0.02    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| UPPER MANNVILLE O                | 61.6                           | 0.06     |          | 3.7                            |                                | 3.7                            | 3.0                            | 0.7                                  |
| UPPER MANNVILLE S                | 135.0                          | 0.10     |          | 13.5                           |                                | 13.5                           |                                | 13.5                                 |
| ARMADA 016-19W4                  |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL QUARTZ C                   | 6.3                            | 0.10     |          | 0.6                            |                                | 0.6                            | 0.3                            | 0.3                                  |
| ATLEE-BUFFALO<br>021-06W4        |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                | 77.3                           | <0.03    |          | 1.9                            |                                | 1.9                            | 1.0                            | 0.9                                  |
| UPPER MANNVILLE F                | 3 800.0                        | 0.05     |          | 190.0                          |                                | 190.0                          | 39.4                           | 150.6                                |
| UPPER MANNVILLE G                | 5 070.0                        | 0.08     |          | 406.0                          |                                | 406.0                          | 118.7                          | 287.3                                |

HEAVY CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64   | 7.50                        | 0.180    | 0.30          | 0.90      | 42                             | 890               | 31   | 11 274              | 1 002.2                    | 1983         | 84 05                          |
| 64   | 2.00                        | 0.220    | 0.35          | 0.90      | 42                             | 887               | 30   | 9 665               | 967.3                      | 1983         | 84 05                          |
| 16   | 3.00                        | 0.170    | 0.35          | 0.88      | 52                             | 931               | 29   | 9 674               | 968.3                      | 1983         | 84 05                          |
| 16   | 6.70                        | 0.230    | 0.32          | 0.88      | 52                             | 928               | 33   | 10 533              | 981.8                      | 1983         | 85 12                          |
| 157  | 4.11                        | 0.200    | 0.33          | 0.88      | 100                            | 894               | 30   | 10 743              | 986.9                      | 1983         | 85 09                          |
| 16   | 1.60                        | 0.170    | 0.40          | 0.89      | 41                             | 927               | 30   | 10 415              | 941.0                      | 1983         | 84 09                          |
| 16   | 3.00                        | 0.220    | 0.40          | 0.89      | 41                             | 927               | 27   | 10 572              | 948.5                      | 1983         | 84 09                          |
| 16   | 5.20                        | 0.240    | 0.35          | 0.88      | 50                             | 930               | 34   | 10 094              | 1 019.6                    | 1982         | 85 12                          |
| 16   | 6.10                        | 0.200    | 0.40          | 0.88      | 50                             | 943               | 33   | 10 000              | 984.8                      | 1983         | 84 09                          |
| 16   | 3.50                        | 0.210    | 0.35          | 0.88      | 50                             | 943               | 33   | 10 000              | 995.9                      | 1983         | 84 09                          |
| 32   | 1.00                        | 0.230    | 0.33          | 0.88      | 50                             | 915               | 30   | 10 090              | 1 017.7                    | 1983         | 84 10                          |
| 16   | 3.60                        | 0.150    | 0.45          | 0.88      | 50                             | 890               | 31   | 10 254              | 1 037.2                    | 1983         | 84 10                          |
| 16   | 5.00                        | 0.180    | 0.40          | 0.88      | 50                             | 882               | 31   | 11 278              | 1 041.5                    | 1983         | 84 10                          |
| 64   | 4.70                        | 0.220    | 0.35          | 0.91      | 37                             | 877               | 29   | 5 600               | 964.4                      | 1984         | 84 10                          |
| 16   | 1.20                        | 0.250    | 0.25          | 0.88      | 42                             | 904               | 32   | 10 904              | 1 041.1                    | 1980         | 81 12                          |
| 16   | 3.90                        | 0.170    | 0.40          | 0.85      | 65                             | 902               | 31   | 10 669              | 1 030.2                    | 1984         | 84 11                          |
| 16   | 2.50                        | 0.140    | 0.40          | 0.85      | 65                             | 902               | 31   | 10 915              | 1 043.9                    | 1984         | 84 11                          |
| 16   | 0.60                        | 0.180    | 0.32          | 0.88      | 53                             | 895               | 30   | 10 205              | 988.8                      | 1984         | 84 11 - SUSP 85 05             |
| 16   | 2.50                        | 0.180    | 0.30          | 0.88      | 67                             | 875               | 33   | 10 435              | 1 057.6                    | 1984         | 84 12                          |
| 16   | 2.10                        | 0.200    | 0.45          | 0.88      | 54                             | 928               | 30   | 10 064              | 964.0                      | 1984         | 84 12                          |
| 16   | 1.80                        | 0.160    | 0.38          | 0.90      | 40                             | 904               | 30   | 10 910              | 1 022.8                    | 1973         | 85 01 - GPP                    |
| 32   | 2.70                        | 0.260    | 0.26          | 0.88      | 53                             | 895               | 30   | 10 541              | 990.8                      | 1984         | 85 07                          |
| 32   | 1.00                        | 0.180    | 0.45          | 0.88      | 53                             | 897               | 30   | 10 251              | 982.8                      | 1984         | 85 02                          |
| 64   | 8.86                        | 0.190    | 0.34          | 0.90      | 42                             | 895               | 30   | 9 970               | 982.9                      | 1984         | 85 08                          |
| 32   | 2.50                        | 0.180    | 0.40          | 0.88      | 50                             | 900               | 32   | 9 755               | 929.1                      | 1984         | 85 03                          |
| 32   | 4.80                        | 0.150    | 0.50          | 0.88      | 50                             | 900               | 34   | 9 800               | 987.6                      | 1984         | 85 03                          |
| 16   | 1.00                        | 0.180    | 0.48          | 0.88      | 50                             | 925               | 30   | 9 264               | 932.2                      | 1984         | 85 05                          |
| 16   | 1.00                        | 0.200    | 0.50          | 0.88      | 53                             | 877               | 30   | 7 500               | 975.7                      | 1984         | 85 05                          |
| 16   | 3.40                        | 0.170    | 0.37          | 0.88      | 50                             | 880               | 30   | 8 700               | 995.7                      | 1984         | 85 05                          |
| 16   | 2.20                        | 0.220    | 0.35          | 0.92      | 33                             | 880               | 30   | 5 400               | 976.4                      | 1984         | 85 05                          |
| 32   | 5.40                        | 0.170    | 0.32          | 0.90      | 42                             | 890               | 33   | 11 012              | 1 040.2                    | 1984         | 85 07                          |
| 16   | 3.30                        | 0.300    | 0.22          | 0.85      | 64                             | 892               | 32   | 11 000              | 1 003.8                    | 1962         | 85 12 - GPP                    |
| 64   | 8.20                        | 0.180    | 0.30          | 0.85      | 64                             | 892               | 32   | 11 000              | 983.0                      | 1962         | 85 12 - GPP                    |
| 32   | 10.40                       | 0.170    | 0.30          | 0.85      | 64                             | 892               | 32   | 11 000              | 982.2                      | 1963         | 85 12 - GPP                    |
| 64   | 2.50                        | 0.200    | 0.37          | 0.88      | 50                             | 902               | 31   | 12 975              | 1 045.0                    | 1983         | 83 07                          |
| 64   | 3.03                        | 0.170    | 0.48          | 0.88      | 52                             | 895               | 33   | 10 480              | 985.8                      | 1983         | 85 12                          |
| 32   | 2.50                        | 0.200    | 0.45          | 0.88      | 52                             | 888               | 31   | 10 604              | 933.0                      | 1983         | 85 12                          |
| 32   | 3.40                        | 0.230    | 0.33          | 0.85      | 64                             | 892               | 32   | 10 960              | 991.2                      | 1963         | 85 12 - GPP                    |
| 65   | 3.05                        | 0.160    | 0.35          | 0.85      | 35                             | 927               | 38   | 8 830               | 1 157.6                    | 1968         | 71 12 - SUSP 71 10             |
| 64   | 1.52                        | 0.230    | 0.34          | 0.85      | 66                             | 887               | 48   | 9 100               | 1 234.1                    | 1976         | 85 12                          |
| 65   | 10.06                       | 0.124    | 0.25          | 0.85      | 39                             | 927               | 48   | 9 100               | 1 234.1                    | 1968         | 71 12 - ABAND 72 12            |
| 16   | 5.90                        | 0.095    | 0.44          | 0.85      | 64                             | 938               | 37   | 9 214               | 1 241.8                    | 1984         | 85 04                          |
| 65   | 2.44                        | 0.160    | 0.30          | 0.90      | 50                             | 921               | 43   | 11 380              | 1 361.8                    | 1968         | 71 12 - ABAND 71 12            |
| 65   | 3.66                        | 0.200    | 0.30          | 0.89      | 44                             | 946               | 43   | 11 460              | 1 388.1                    | 1970         | 73 12 - GPP                    |
| 729  | 14.36                       | 0.130    | 0.36          | 0.87      | 51                             | 921               | 43   | 11 470              | 1 373.7                    | 1968         | 83 09                          |
| 16   | 4.00                        | 0.230    | 0.40          | 0.98      | 7                              | 970               | 30   | 6 999               | 857.0                      | 1980         | 80 10 - SUSP 81 09             |
| 16   | 3.50                        | 0.220    | 0.40          | 0.98      | 7                              | 970               | 30   | 2 650               | 861.8                      | 1980         | 80 10 - SUSP 81 09             |
| 16   | 1.70                        | 0.280    | 0.25          | 0.98      | 14                             | 985               | 33   | 6 268               | 871.9                      | 1979         | 80 03 - ABAND 83 01            |
| 128  | 8.53                        | 0.240    | 0.40          | 0.97      | 10                             | 940               | 31   | 5 900               | 836.1                      | 1957         | 85 12                          |
| 112  | 6.09                        | 0.240    | 0.40          | 0.97      | 10                             | 940               | 30   | 5 900               | 829.8                      | 1957         | 83 12                          |
| 16   | 11.50                       | 0.300    | 0.15          | 0.97      | 10                             | 934               | 31   | 2 597               | 832.2                      | 1984         | 84 12                          |
| 16   | 1.80                        | 0.230    | 0.32          | 0.97      | 13                             | 959               | 28   | 5 750               | 885.7                      | 1977         | 77 06 - SUSP 79 08             |
| 16   | 2.10                        | 0.270    | 0.30          | 0.97      | 12                             | 965               | 28   | 5 642               | 844.8                      | 1977         | 82 12 - GPP                    |
| 64   | 1.80                        | 0.200    | 0.35          | 0.90      | 40                             | 860               | 32   | 5 700               | 877.6                      | 1984         | 85 10                          |
| 16   | 0.60                        | 0.120    | 0.38          | 0.88      | 50                             | 930               | 37   | 11 701              | 1 232.7                    | 1981         | 83 11 - SUSP 85 09             |
| 16   | 3.10                        | 0.260    | 0.37          | 0.95      | 32                             | 969               | 26   | 10 170              | 922.2                      | 1972         | 83 06 - SUSP 83 03             |
| 576  | 4.00                        | 0.260    | 0.31          | 0.92      | 20                             | 972               | 31   | 10 350              | 920.6                      | 1976         | 81 07 - GPP                    |
| 565  | 4.53                        | 0.280    | 0.24          | 0.93      | 22                             | 969               | 30   | 10 032              | 890.8                      | 1980         | 85 07                          |

TABLE 2-4

| FIELD<br>POOL               | 1                              | 2        | 3        | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                             | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                             |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                             | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>ATLEE-BUFFALO</b>        |                                |          |          |                                |                                |                                |                                |                                      |
| <b>021-06W4 (CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE K           | 46.7                           | 0.05     |          | 2.3                            |                                | 2.3                            | 1.3                            | 1.0                                  |
| GLAUCONITIC A               | 142.0                          | 0.05     |          | 7.1                            |                                | 7.1                            | 1.5                            | 5.6                                  |
| GLAUCONITIC B               | 25.1                           | 0.05     |          | 1.3                            |                                | 1.3                            | 0.2                            | 1.1                                  |
| OSTRACOD A                  | 22.5                           | 0.05     |          | 1.1                            |                                | 1.1                            | 0.1                            | 1.0                                  |
| BASAL MANNVILLE B           | 192.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| BASAL MANNVILLE D           | 462.0                          | 0.02     |          | 9.2                            |                                | 9.2                            | 0.5                            | 8.7                                  |
| BASAL MANNVILLE E           | 80.0                           | 0.10     |          | 8.0                            |                                | 8.0                            | 4.9                            | 3.1                                  |
| BASAL MANNVILLE F           | 26.5                           | 0.10     |          | 2.7                            |                                | 2.7                            | 1.4                            | 1.3                                  |
| BANFF A                     | 188.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| <b>AUBURNDALE 047-06W4</b>  |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY F                    | 103.0                          | 0.05     |          | 5.2                            |                                | 5.2                            | 0.1                            | 5.1                                  |
| WAINWRIGHT A                | 914.0                          | 0.08     |          | 73.1                           |                                | 73.1                           | 53.0                           | 20.1                                 |
| WAINWRIGHT B                | 1 590.0                        | 0.05     |          | 79.5                           |                                | 79.5                           | 31.4                           | 48.1                                 |
| <b>BADGER 016-18W4</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B           | 1 660.0                        | 0.10     |          | 166.0                          |                                | 166.0                          | 30.3                           | 135.7                                |
| UPPER MANNVILLE C           | 81.3                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| LOWER MANNVILLE A           | 101.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| <b>BANTRY 018-13W4</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE A                 | 25 300.0                       | 0.32     |          | 8 100.0                        |                                | 8 100.0                        | 5 322.3                        | 2 777.7                              |
| MANNVILLE B                 | 1 510.0                        | 0.15     |          | 227.0                          |                                | 227.0                          | 168.7                          | 58.3                                 |
| MANNVILLE D                 | 3 700.0                        | 0.25     |          | 925.0                          |                                | 925.0                          | 753.2                          | 171.8                                |
| MANNVILLE F                 | 550.0                          | 0.16     |          | 88.0                           |                                | 88.0                           | 73.7                           | 14.3                                 |
| MANNVILLE G                 | 752.0                          | 0.10     |          | 75.2                           |                                | 75.2                           | 60.5                           | 14.7                                 |
| MANNVILLE H                 | 100.0                          | 0.05     |          | 5.0                            |                                | 5.0                            | 1.6                            | 3.4                                  |
| MANNVILLE I                 | 142.0                          | 0.12     |          | 17.0                           |                                | 17.0                           | 15.4                           | 1.6                                  |
| MANNVILLE J                 | 545.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MANNVILLE M                 | 1 120.0                        | 0.02     |          | 22.4                           |                                | 22.4                           | 10.0                           | 12.4                                 |
| MANNVILLE O                 | 173.0                          | 0.07     |          | 12.1                           |                                | 12.1                           | 9.4                            | 2.7                                  |
| MANNVILLE P                 | 188.0                          | 0.10     |          | 18.8                           |                                | 18.8                           | 14.2                           | 4.6                                  |
| MANNVILLE R                 | 76.8                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| MANNVILLE S                 | 70.0                           | 0.07     |          | 5.0                            |                                | 5.0                            | 4.2                            | 0.8                                  |
| MANNVILLE V                 | 82.1                           | 0.10     |          | 8.2                            |                                | 8.2                            | 0.5                            | 7.7                                  |
| MANNVILLE W                 | 128.0                          | 0.05     |          | 6.4                            |                                | 6.4                            | 1.8                            | 4.6                                  |
| MANNVILLE Z                 | 175.0                          | 0.15     |          | 26.3                           |                                | 26.3                           | 8.7                            | 17.6                                 |
| MANNVILLE AA                | 183.0                          | 0.10     |          | 18.3                           |                                | 18.3                           | 0.8                            | 17.5                                 |
| MANNVILLE DD                | 297.0                          | 0.10     |          | 29.7                           |                                | 29.7                           | 4.7                            | 25.0                                 |
| MANNVILLE FF                | 1 300.0                        | <0.17    |          | 220.0                          |                                | 220.0                          | 158.5                          | 61.5                                 |
| MANNVILLE GG                | 64.2                           | 0.10     |          | 6.4                            |                                | 6.4                            | 0.4                            | 6.0                                  |
| MANNVILLE HH                | 83.1                           | 0.10     |          | 8.3                            |                                | 8.3                            |                                | 8.3                                  |
| SUNBURST A                  | 333.0                          | 0.10     |          | 33.3                           |                                | 33.3                           | 11.1                           | 22.2                                 |
| SUNBURST B                  | 97.7                           | 0.10     |          | 9.8                            |                                | 9.8                            | 0.8                            | 9.0                                  |
| DETRITAL A                  | 58.9                           | 0.10     |          | 5.9                            |                                | 5.9                            | 2.3                            | 3.6                                  |
| DETRITAL B                  | 414.0                          | 0.10     |          | 41.4                           |                                | 41.4                           | 8.6                            | 32.8                                 |
| PEKISKO A                   | 66.7                           | <0.02    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| PEKISKO B                   | 172.0                          | <0.01    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| PEKISKO C                   | 134.0                          | 0.10     |          | 13.4                           |                                | 13.4                           | 2.6                            | 10.8                                 |
| PEKISKO D                   | 293.0                          | 0.10     |          | 29.3                           |                                | 29.3                           | 4.8                            | 24.5                                 |
| PEKISKO F                   | 165.0                          | 0.10     |          | 16.5                           |                                | 16.5                           | 2.8                            | 13.7                                 |
| PEKISKO G                   | 326.0                          | 0.10     |          | 32.6                           |                                | 32.6                           | 6.8                            | 25.8                                 |
| <b>BARRHEAD 058-05W5</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| BANFF A                     | 59.1                           | <0.02    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| <b>BAXTER LAKE 046-05W4</b> |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE C                 | 567.0                          | 0.05     |          | 28.4                           |                                | 28.4                           | 0.1                            | 28.3                                 |
| WAINWRIGHT                  | 1 340.0                        | 0.15     |          | 201.0                          |                                | 201.0                          | 171.3                          | 29.7                                 |
| WAINWRIGHT C                | 296.0                          | 0.10     |          | 29.6                           |                                | 29.6                           | 16.8                           | 12.8                                 |
| LLOYDMINSTER A              | 205.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| <b>BEAUVALLON 053-09W4</b>  |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY R                    | 418.0                          | <0.01    |          | 1.4                            |                                | 1.4                            | 1.4                            |                                      |
| <b>BERRY 027-12W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE I           | 44.5                           | <0.03    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| UPPER MANNVILLE J           | 81.0                           | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| UPPER MANNVILLE M           | 84.5                           | 0.10     |          | 8.5                            |                                | 8.5                            | 0.6                            | 7.9                                  |
| LOWER MANNVILLE A           | 888.0                          | 0.04     |          | 35.5                           |                                | 35.5                           | 21.4                           | 14.1                                 |
| LOWER MANNVILLE F           | 105.0                          | 0.08     |          | 8.4                            |                                | 8.4                            | 5.9                            | 2.5                                  |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 16    | 1.80                        | 0.280    | 0.39          | 0.95      | 32                             | 969               | 26   | 5 580               | 986.6                      | 1977         | 83 09 - GPP                    |
| 16    | 5.70                        | 0.240    | 0.30          | 0.93      |                                | 965               | 32   | 8 861               | 875.4                      | 1981         | 82 04 - SUSP 85 09             |
| 16    | 1.30                        | 0.200    | 0.35          | 0.93      | 30                             | 976               | 32   | 8 780               | 866.9                      | 1982         | 84 05 - SUSP 84 04             |
| 16    | 1.00                        | 0.220    | 0.34          | 0.97      | 10                             | 980               | 33   | 8 100               | 1 009.2                    | 1982         | 83 01 - SUSP 84 03             |
| 16    | 9.70                        | 0.220    | 0.42          | 0.97      | 21                             | 986               | 33   | 10 690              | 1 020.2                    | 1976         | 78 10 - SUSP 77 09             |
| 65    | 6.10                        | 0.220    | 0.44          | 0.95      | 21                             | 999               | 28   | 9 450               | 942.1                      | 1974         | 77 02 -                        |
| 32    | 2.40                        | 0.184    | 0.42          | 0.97      | 21                             | 986               | 33   | 9 896               | 1 009.7                    | 1976         | 82 06 - GPP                    |
| 16    | 1.20                        | 0.230    | 0.38          | 0.97      | 21                             | 986               | 33   | 10 690              | 1 013.8                    | 1976         | 82 06 - GPP                    |
| 16    | 7.00                        | 0.250    | 0.30          | 0.96      | 15                             | 998               | 32   | 10 250              | 897.2                      | 1982         | 85 12 - SUSP 82 12             |
| 16    | 4.00                        | 0.270    | 0.40          | 0.99      | 8                              | 971               | 26   | 2 567               | 619.6                      | 1981         | 82 07 - SUSP 83 11             |
| 348   | 1.52                        | 0.300    | 0.40          | 0.96      | 14                             | 959               | 24   | 3 760               | 630.9                      | 1964         | 85 12 - GPP                    |
| 370   | 1.82                        | 0.316    | 0.22          | 0.96      | 9                              | 959               | 24   | 3 860               | 626.8                      | 1974         | 81 12 - GPP                    |
| 144   | 6.82                        | 0.240    | 0.20          | 0.88      | 56                             | 930               | 34   | 11 853              | 1 110.3                    | 1981         | 85 03 -                        |
| 64    | 1.00                        | 0.200    | 0.27          | 0.87      | 55                             | 930               | 33   | 10 942              | 1 119.5                    | 1983         | 85 07 - SUSP 84 02             |
| 16    | 5.90                        | 0.150    | 0.20          | 0.90      | 46                             | 965               | 38   | 12 270              | 1 149.3                    | 1978         | 79 02 - SUSP 79 02             |
| 4 565 | 3.44                        | 0.265    | 0.31          | 0.88      | 54                             | 904               | 28   | 10 860              | 990.6                      | 1948         | 85 11 - GPP                    |
| 392   | 2.50                        | 0.250    | 0.30          | 0.88      | 54                             | 904               | 28   | 10 790              | 971.1                      | 1960         | 83 12 - GPP                    |
| 814   | 3.24                        | 0.228    | 0.30          | 0.88      | 54                             | 904               | 33   | 10 790              | 1 021.4                    | 1963         | 84 08 -                        |
| 128   | 3.00                        | 0.250    | 0.35          | 0.88      | 54                             | 904               | 33   | 11 200              | 1 013.5                    | 1962         | 83 12 - GPP                    |
| 192   | 2.65                        | 0.240    | 0.30          | 0.88      | 54                             | 904               | 28   | 10 830              | 979.3                      | 1964         | 80 12 - GPP                    |
| 32    | 2.13                        | 0.230    | 0.30          | 0.90      | 54                             | 904               | 38   | 10 930              | 1 004.3                    | 1965         | 83 09 - GPP                    |
| 121   | 0.91                        | 0.230    | 0.30          | 0.80      | 54                             | 904               | 32   | 11 030              | 1 027.5                    | 1965         | 80 12 - GPP                    |
| 65    | 7.01                        | 0.210    | 0.35          | 0.88      | 54                             | 904               | 33   | 10 960              | 1 018.3                    | 1967         | 68 09 - ABAND 68 07            |
| 120   | 6.06                        | 0.250    | 0.30          | 0.88      | 54                             | 904               | 36   | 8 960               | 1 003.1                    | 1958         | 85 12 - GPP                    |
| 32    | 3.05                        | 0.250    | 0.10          | 0.79      | 57                             | 915               | 37   | 11 400              | 1 012.2                    | 1964         | 81 12 -                        |
| 32    | 3.97                        | 0.240    | 0.30          | 0.88      | 54                             | 904               | 28   | 10 930              | 974.1                      | 1968         | 83 12 - GPP                    |
| 32    | 2.50                        | 0.220    | 0.51          | 0.89      | 47                             | 910               | 37   | 10 578              | 1 006.3                    | 1979         | 81 02 - SUSP 80 03             |
| 32    | 1.53                        | 0.250    | 0.35          | 0.88      | 54                             | 904               | 33   | 11 200              | 1 019.1                    | 1962         | 83 01 - GPP                    |
| 32    | 2.70                        | 0.180    | 0.40          | 0.88      | 54                             | 903               | 31   | 9 818               | 973.9                      | 1980         | 81 12 - SUSP 83 05             |
| 32    | 3.50                        | 0.200    | 0.35          | 0.88      | 54                             | 914               | 31   | 8 710               | 948.5                      | 1980         | 84 12 -                        |
| 32    | 4.50                        | 0.200    | 0.31          | 0.88      | 48                             | 883               | 34   | 10 596              | 964.8                      | 1982         | 85 08 -                        |
| 64    | 2.50                        | 0.200    | 0.35          | 0.88      | 48                             | 893               | 35   | 10 304              | 1 010.5                    | 1982         | 83 01 -                        |
| 96    | 2.99                        | 0.210    | 0.44          | 0.88      | 54                             | 887               | 29   | 9 339               | 949.5                      | 1983         | 83 09 - GPP                    |
| 253   | 3.23                        | 0.255    | 0.29          | 0.88      | 54                             | 904               | 33   | 10 790              | 1 014.2                    | 1968         | 84 08 -                        |
| 64    | 1.00                        | 0.190    | 0.40          | 0.88      | 50                             | 893               | 37   | 9 188               | 1 025.3                    | 1984         | 84 11 -                        |
| 64    | 1.10                        | 0.220    | 0.39          | 0.88      | 53                             | 882               | 30   | 8 200               | 1 005.4                    | 1984         | 85 05 -                        |
| 64    | 6.07                        | 0.150    | 0.35          | 0.88      | 48                             | 880               | 32   | 10 414              | 962.0                      | 1983         | 84 09 -                        |
| 64    | 1.70                        | 0.170    | 0.40          | 0.88      | 48                             | 870               | 32   | 9 704               | 954.9                      | 1983         | 83 09 - SUSP 83 03             |
| 32    | 1.53                        | 0.228    | 0.40          | 0.88      | 42                             | 870               | 30   | 8 371               | 972.0                      | 1983         | 83 11 - GPP                    |
| 64    | 4.44                        | 0.240    | 0.31          | 0.88      | 50                             | 882               | 30   | 8 700               | 972.5                      | 1984         | 84 09 -                        |
| 16    | 14.63                       | 0.045    | 0.30          | 0.90      | 53                             | 965               | 39   | 10 740              | 976.6                      | 1966         | 68 05 - ABAND 68 09            |
| 55    | 3.05                        | 0.170    | 0.33          | 0.90      | 40                             | 934               | 32   | 10 290              | 983.0                      | 1977         | 83 12 - ABAND 78 05            |
| 64    | 2.00                        | 0.150    | 0.20          | 0.87      | 55                             | 880               | 33   | 9 500               | 1 007.5                    | 1982         | 83 01 -                        |
| 64    | 8.48                        | 0.080    | 0.25          | 0.90      | 41                             | 880               | 32   | 10 669              | 963.5                      | 1983         | 85 05 -                        |
| 32    | 9.97                        | 0.072    | 0.20          | 0.90      | 40                             | 892               | 29   | 9 990               | 966.4                      | 1984         | 85 04 -                        |
| 96    | 7.49                        | 0.080    | 0.37          | 0.90      | 43                             | 896               | 28   | 7 000               | 967.8                      | 1972         | 85 07 -                        |
| 32    | 3.00                        | 0.110    | 0.30          | 0.80      | 51                             | 921               | 40   | 9 777               | 1 222.5                    | 1949         | 82 12 - SUSP 82 02             |
| 64    | 3.70                        | 0.330    | 0.22          | 0.93      | 28                             | 959               | 29   | 4 450               | 661.1                      | 1976         | 85 08 - SUSP 85 08             |
| 307   | 2.00                        | 0.330    | 0.31          | 0.96      | 18                             | 952               | 22   | 3 930               | 667.8                      | 1948         | 84 12 - GPP                    |
| 56    | 2.53                        | 0.320    | 0.32          | 0.96      | 20                             | 959               | 20   | 3 890               | 669.3                      | 1973         | 84 10 - GPP                    |
| 16    | 10.67                       | 0.240    | 0.45          | 0.90      | 27                             | 927               | 32   | 4 128               | 707.6                      | 1975         | 78 12 - SUSP 78 12             |
| 16    | 10.70                       | 0.300    | 0.17          | 0.98      | 10                             | 987               | 27   | 4 026               | 594.2                      | 1978         | 83 12 - SUSP 81 12             |
| 16    | 2.77                        | 0.190    | 0.42          | 0.91      | 44                             | 910               | 34   | 9 270               | 1 104.1                    | 1977         | 84 12 - SUSP 83 04             |
| 32    | 2.47                        | 0.190    | 0.40          | 0.90      | 43                             | 876               | 37   | 9 482               | 1 119.2                    | 1978         | 83 12 - SUSP 81 11             |
| 64    | 2.00                        | 0.150    | 0.50          | 0.88      | 48                             | 858               | 34   | 10 145              | 1 100.5                    | 1978         | 83 12 -                        |
| 160   | 4.47                        | 0.210    | 0.35          | 0.91      | 40                             | 891               | 34   | 9 670               | 1 080.1                    | 1965         | 83 10 - GPP                    |
| 32    | 3.40                        | 0.180    | 0.41          | 0.91      | 51                             | 860               | 42   | 9 324               | 1 115.4                    | 1976         | 82 12 -                        |

TABLE 2-4

| FIELD<br>POOL                                  | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| BIGORAY 052-08W5<br>PEKISKO A                  | 5 400.0                        | 0.03     |          | 162.0                          |                                | 162.0                          | 106.3                          | 55.7                                 |
| BINDLOSS 022-04W4<br>GLAUDNITIC A              | 43.1                           | 0.05     |          | 2.2                            |                                | 2.2                            | 1.0                            | 1.2                                  |
| LOWER MANNVILLE A                              | 194.0                          | 0.03     |          | 5.8                            |                                | 5.8                            | 3.5                            | 2.3                                  |
| LOWER MANNVILLE B                              | 166.0                          | 0.05     |          | 8.3                            |                                | 8.3                            | 0.1                            | 8.2                                  |
| BIRCH 050-11W4<br>GENERAL PETROLEUM A          | 105.0                          | 0.05     |          | 5.3                            |                                | 5.3                            | 1.4                            | 3.9                                  |
| BLACK BUTTE 001-08W4<br>MANNVILLE B            | 558.0                          | 0.03     |          | 16.7                           |                                | 16.7                           | 9.8                            | 6.9                                  |
| BLUERIDGE 059-10W5<br>PEKISKO A                | 1 720.0                        | <0.01    |          | 5.5                            |                                | 5.5                            | 5.5                            |                                      |
| BOLLOQUE 064-25W4<br>UPPER MANNVILLE A         | 246.0                          | 0.01     |          | 2.5                            |                                | 2.5                            | 1.6                            | 0.9                                  |
| BONNYVILLE 060-05W4<br>COLONY                  | 386.0                          | <0.09    |          | 33.1                           |                                | 33.1                           |                                | 33.1                                 |
| COLONY B                                       | 1 070.0                        | <0.01    |          | 3.0                            |                                | 3.0                            | 0.8                            | 2.2                                  |
| BOW ISLAND 011-11W4<br>LOWER MANNVILLE A       | 49.4                           | 0.10     |          | 4.9                            |                                | 4.9                            | 1.1                            | 3.8                                  |
| LOWER MANNVILLE B                              | 71.7                           | <0.02    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| LOWER MANNVILLE C                              | 59.2                           | 0.10     |          | 5.9                            |                                | 5.9                            | 1.6                            | 4.3                                  |
| BUFF COULEE 047-07W4<br>COLONY H               | 139.0                          | 0.05     |          | 7.0                            |                                | 7.0                            | 0.3                            | 6.7                                  |
| CESSFORD 025-13W4<br>BASAL COLORADO A          | 11 800.0                       |          |          | 1 800.0                        | 899.0                          | 2 700.0                        | 1 725.1                        | 974.9                                |
| TOTAL  |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                                   | 5 840.0                        | 0.15     |          | 900.0                          |                                | 900.0                          |                                |                                      |
| WATER FLOOD AREA                               | 5 990.0                        | 0.15     | 0.15     | 899.0                          | 899.0                          | 1 800.0                        |                                |                                      |
| MANNVILLE B                                    | 780.0                          | 0.06     |          | 46.8                           |                                | 46.8                           | 38.9                           | 7.9                                  |
| MANNVILLE C                                    | 27 000.0                       | 0.09     |          | 2 430.0                        |                                | 2 430.0                        | 1 992.9                        | 437.1                                |
| MANNVILLE E                                    | 286.0                          | 0.10     |          | 28.6                           |                                | 28.6                           | 26.6                           | 2.0                                  |
| MANNVILLE I                                    | 139.0                          | 0.10     |          | 13.9                           |                                | 13.9                           | 10.9                           | 3.0                                  |
| MANNVILLE M                                    | 227.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| MANNVILLE X                                    | 173.0                          | 0.14     |          | 24.2                           |                                | 24.2                           | 23.0                           | 1.2                                  |
| MANNVILLE NN                                   | 130.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MANNVILLE QQ                                   | 128.0                          | <0.04    |          | 4.6                            |                                | 4.6                            | 4.6                            |                                      |
| MANNVILLE Y&Z                                  | 5 360.0                        | 0.15     |          | 804.0                          |                                | 804.0                          | 347.9                          | 456.1                                |
| MANNVILLE GGG                                  | 81.0                           | 0.10     |          | 8.1                            |                                | 8.1                            | 5.3                            | 2.8                                  |
| MANNVILLE RRR                                  | 137.0                          | 0.05     |          | 6.9                            |                                | 6.9                            | 0.7                            | 6.2                                  |
| MANNVILLE VVV                                  | 47.6                           | 0.10     |          | 4.8                            |                                | 4.8                            | 0.4                            | 4.4                                  |
| MANNVILLE WWW                                  | 89.1                           | <0.01    |          | 0.6                            |                                | 0.6                            | 0.5                            | 0.1                                  |
| MANNVILLE XXX                                  | 146.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MANNVILLE L2L                                  | 57.7                           | 0.10     |          | 5.8                            |                                | 5.8                            | 1.3                            | 4.5                                  |
| COLONY A                                       | 55.6                           | 0.05     |          | 2.8                            |                                | 2.8                            | 0.3                            | 2.5                                  |
| BASAL QUARTZ C                                 | 789.0                          | 0.05     |          | 39.4                           |                                | 39.4                           | 3.1                            | 36.3                                 |
| BASAL QUARTZ F                                 | 103.0                          | 0.10     |          | 10.3                           |                                | 10.3                           |                                | 10.3                                 |
| PEKISKO A                                      | 63.6                           | <0.03    |          | 1.4                            |                                | 1.4                            | 1.4                            |                                      |
| CHAUVIN 043-01W4<br>MANNVILLE A TOTAL          | 6 440.0                        |          |          | 688.0                          | 550.0                          | 1 240.0                        | 1 075.6                        | 164.4                                |
| PRIMARY AREA                                   | 341.0                          | 0.05     |          | 17.0                           |                                | 17.0                           |                                |                                      |
| WATER FLOOD AREA                               | 6 100.0                        | 0.11     | 0.09     | 671.0                          | 550.0                          | 1 220.0                        |                                |                                      |
| MANNVILLE B                                    | 800.0                          | 0.10     |          | 80.0                           |                                | 80.0                           | 49.8                           | 30.2                                 |
| SPARKY A WATER FLOOD                           | 300.0                          | 0.10     | 0.10     | 30.0                           | 30.0                           | 60.0                           | 43.9                           | 16.1                                 |
| SPARKY D                                       | 1 510.0                        | 0.08     |          | 121.0                          |                                | 121.0                          | 42.8                           | 78.2                                 |
| SPARKY E                                       | 276.0                          | 0.10     |          | 27.6                           |                                | 27.6                           | 11.2                           | 16.4                                 |
| GENERAL PETROLEUM A                            | 234.0                          | 0.02     |          | 4.7                            |                                | 4.7                            | 0.7                            | 4.0                                  |
| LLOYDMINSTER A                                 | 401.0                          | 0.05     |          | 20.1                           |                                | 20.1                           | 4.1                            | 16.0                                 |
| CUMMINGS A                                     | 556.0                          | 0.02     |          | 11.1                           |                                | 11.1                           | 6.1                            | 5.0                                  |
| CHAUVIN SOUTH<br>042-02W4<br>UPPER MANNVILLE D | 194.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| COLONY A                                       | 556.0                          | 0.05     |          | 27.8                           |                                | 27.8                           | 14.4                           | 13.4                                 |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 3 000 | 4.58                        | 0.072    | 0.35          | 0.84      | 62                             | 915               | 64   | 15 070              | 1 903.8                    | 1969         | 85 01 - GPP                    |
| 16    | 1.50                        | 0.270    | 0.30          | 0.95      | 44                             | 945               | 31   | 10 620              | 785.8                      | 1982         | 83 01 - GPP                    |
| 32    | 3.40                        | 0.280    | 0.33          | 0.95      | 22                             | 974               | 30   | 9 300               | 787.9                      | 1974         | 81 12 - GPP                    |
| 16    | 6.10                        | 0.280    | 0.36          | 0.95      | 16                             | 778               | 40   | 6 300               | 786.3                      | 1981         | 83 01 - SUSP 82 12             |
| 16    | 4.50                        | 0.280    | 0.45          | 0.98      |                                | 965               | 24   | 4 871               | 643.8                      | 1980         | 82 03 - SUSP 84 04             |
| 65    | 6.10                        | 0.250    | 0.35          | 0.87      | 62                             | 915               | 32   | 8 520               | 930.2                      | 1969         | 75 12 - GPP                    |
| 2 148 | 2.07                        | 0.065    | 0.30          | 0.85      | 46                             | 940               | 54   | 12 490              | 1 759.3                    | 1968         | 74 12 - ABAND 81 03            |
| 65    | 2.44                        | 0.250    | 0.35          | 0.96      | 35                             | 946               | 21   | 5 810               | 863.2                      | 1975         | 76 04 - GPP                    |
| 106   | 2.28                        | 0.280    | 0.40          | 0.95      | 5                              | 972               | 16   | 2 520               | 350.5                      | 1951         | 83 12 - SUSP 83 12             |
| 256   | 3.20                        | 0.275    | 0.50          | 0.95      | 5                              | 972               | 16   | 2 620               | 350.5                      | 1951         | 75 12 - ABAND 61 09            |
| 16    | 2.50                        | 0.200    | 0.35          | 0.95      |                                | 928               | 31   | 10 686              | 918.8                      | 1979         | 82 03                          |
| 16    | 3.30                        | 0.220    | 0.35          | 0.95      | 21                             | 931               | 33   | 10 185              | 925.7                      | 1980         | 85 12 - SUSP 84 01             |
| 32    | 1.50                        | 0.220    | 0.41          | 0.95      | 16                             | 916               | 31   | 10 310              | 930.8                      | 1984         | 84 11                          |
| 16    | 4.60                        | 0.300    | 0.30          | 0.90      | 18                             | 961               | 92   | 3 032               | 601.7                      | 1976         | 84 11                          |
| 3 238 |                             |          |               |           | 46                             | 898               | 27   | 8 720               | 929.9                      | 1952         | 82 07 - GPP                    |
| 1 755 | 2.35                        | 0.258    | 0.39          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 1 483 | 3.07                        | 0.240    | 0.39          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 403   | 1.89                        | 0.230    | 0.50          | 0.89      | 44                             | 904               | 35   | 9 760               | 1 033.6                    | 1953         | 82 12 - GPP                    |
| 4 330 | 5.10                        | 0.240    | 0.43          | 0.90      | 44                             | 910               | 31   | 9 760               | 1 019.5                    | 1951         | 83 12 - GPP                    |
| 66    | 3.90                        | 0.247    | 0.48          | 0.87      | 44                             | 904               | 37   | 9 650               | 1 040.0                    | 1962         | 77 12 - GPP                    |
| 65    | 2.44                        | 0.220    | 0.54          | 0.87      | 45                             | 892               | 31   | 9 720               | 1 022.3                    | 1951         | 73 12 - GPP                    |
| 128   | 1.69                        | 0.232    | 0.48          | 0.87      | 60                             | 904               | 33   | 9 710               | 1 056.7                    | 1975         | 76 12 - SUSP 77 04             |
| 64    | 3.10                        | 0.200    | 0.50          | 0.87      | 45                             | 892               | 31   | 8 540               | 1 019.6                    | 1968         | 83 12 - GPP                    |
| 65    | 1.83                        | 0.230    | 0.45          | 0.87      | 48                             | 892               | 31   | 9 580               | 1 009.5                    | 1976         | 77 02 - SUSP 76 05             |
| 65    | 1.52                        | 0.200    | 0.30          | 0.90      | 44                             | 915               | 32   | 8 760               | 1 024.4                    | 1974         | 77 02 - SUSP 82 11             |
| 1 881 | 2.55                        | 0.204    | 0.37          | 0.87      | 45                             | 892               | 35   | 9 550               | 1 010.6                    | 1951         | 85 09 - GPP                    |
| 64    | 1.50                        | 0.210    | 0.55          | 0.89      | 49                             | 904               | 32   | 8 340               | 1 012.8                    | 1977         | 79 01                          |
| 32    | 3.00                        | 0.230    | 0.31          | 0.90      | 25                             | 919               | 32   | 7 906               | 1 025.5                    | 1980         | 82 06                          |
| 32    | 1.74                        | 0.190    | 0.50          | 0.90      | 31                             | 920               | 33   | 7 200               | 1 023.5                    | 1981         | 82 07 - SUSP 83 12             |
| 32    | 3.20                        | 0.200    | 0.50          | 0.87      | 40                             | 944               | 36   | 9 884               | 1 061.3                    | 1981         | 85 12 - SUSP 83 09             |
| 32    | 4.45                        | 0.193    | 0.41          | 0.90      | 38                             | 910               | 39   | 8 008               | 1 054.2                    | 1982         | 85 12 - SUSP 82 11             |
| 32    | 2.40                        | 0.180    | 0.52          | 0.87      | 56                             | 910               | 31   | 9 500               | 997.4                      | 1984         | 84 12                          |
| 16    | 3.00                        | 0.230    | 0.44          | 0.90      | 40                             | 955               | 38   | 8 646               | 860.5                      | 1974         | 83 08 - GPP                    |
| 192   | 6.55                        | 0.140    | 0.46          | 0.83      | 56                             | 865               | 40   | 9 250               | 1 302.9                    | 1980         | 85 12                          |
| 64    | 3.00                        | 0.150    | 0.60          | 0.89      | 40                             | 859               | 32   | 9 679               | 996.8                      | 1981         | 85 08                          |
| 65    | 1.83                        | 0.100    | 0.40          | 0.89      | 66                             | 844               | 44   | 9 580               | 1 277.4                    | 1961         | 61 09 - ABAND 68 05            |
| 844   |                             |          |               |           | 14                             | 921               | 24   | 4 830               | 630.0                      | 1952         | 80 12                          |
| 64    | 3.30                        | 0.300    | 0.44          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 780   | 4.85                        | 0.300    | 0.44          | 0.96      |                                |                   |      |                     |                            |              | - GPP                          |
| 191   | 2.24                        | 0.300    | 0.35          | 0.96      | 14                             | 921               | 24   | 4 830               | 615.7                      | 1954         | 84 12 - GPP                    |
| 130   | 1.82                        | 0.240    | 0.45          | 0.96      | 14                             | 922               | 24   | 5 540               | 625.7                      | 1980         | 82 07                          |
| 655   | 1.27                        | 0.300    | 0.37          | 0.96      | 17                             | 950               | 24   | 4 712               | 589.6                      | 1974         | 84 12                          |
| 80    | 1.81                        | 0.320    | 0.48          | 0.96      | 17                             | 943               | 24   | 4 340               | 612.6                      | 1979         | 85 12                          |
| 32    | 3.37                        | 0.310    | 0.28          | 0.97      | 13                             | 950               | 24   | 4 664               | 636.7                      | 1979         | 83 11                          |
| 32    | 6.47                        | 0.280    | 0.28          | 0.96      | 16                             | 940               | 25   | 4 600               | 658.7                      | 1978         | 82 05                          |
| 64    | 4.44                        | 0.290    | 0.29          | 0.95      | 21                             | 956               | 26   | 4 452               | 637.6                      | 1978         | 82 09 - GPP                    |
| 16    | 5.40                        | 0.320    | 0.23          | 0.91      | 45                             | 985               | 24   | 3 884               | 608.9                      | 1979         | 80 06 - SUSP 80 12             |
| 64    | 4.42                        | 0.292    | 0.30          | 0.95      | 14                             | 927               | 25   | 4 220               | 608.1                      | 1963         | 83 03                          |

TABLE 2-4

| FIELD<br>POOL           | 1                              | 3        |          | 5                              |                                |                                | 6                              | 7                                    | 8 |
|-------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|---|
|                         | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |   |
|                         |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |   |
|                         | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |   |
| CHAUVIN SOUTH           |                                |          |          |                                |                                |                                |                                |                                      |   |
| 042-02W4 (CONTINUED)    |                                |          |          |                                |                                |                                |                                |                                      |   |
| COLONY B                | 833.0                          | 0.03     |          | 25.0                           |                                | 25.0                           | 16.9                           | 8.1                                  |   |
| COLONY H                | 567.0                          | 0.10     |          | 56.7                           |                                | 56.7                           | 18.0                           | 38.7                                 |   |
| COLDNY D                | 75.7                           | 0.05     |          | 3.8                            |                                | 3.8                            | 2.3                            | 1.5                                  |   |
| SPARKY E TOTAL          | 3 640.0                        |          |          | 255.0                          | 428.0                          | 683.0                          | 509.4                          | 173.6                                |   |
| PRIMARY AREA            | 1 260.0                        | 0.07     |          | 88.0                           |                                | 88.0                           |                                |                                      |   |
| WATER FLOOD AREA        | 2 380.0                        | 0.07     | 0.18     | 167.0                          | 428.0                          | 595.0                          |                                |                                      |   |
| SPARKY H TOTAL          | 2 980.0                        |          |          | 209.0                          | 394.0                          | 603.0                          | 493.6                          | 109.4                                |   |
| PRIMARY AREA            | 791.0                          | 0.07     |          | 55.4                           |                                | 55.4                           |                                |                                      |   |
| WATER FLOOD AREA        | 2 190.0                        | 0.07     | 0.18     | 154.0                          | 394.0                          | 548.0                          |                                |                                      |   |
| SPARKY M                | 501.0                          | 0.02     |          | 10.0                           |                                | 10.0                           | 5.6                            | 4.4                                  |   |
| SPARKY D                | 163.0                          | 0.05     |          | 8.2                            |                                | 8.2                            | 5.2                            | 3.0                                  |   |
| SPARKY P                | 342.0                          | 0.05     |          | 17.1                           |                                | 17.1                           | 11.3                           | 5.8                                  |   |
| SPARKY T                | 66.6                           | 0.05     |          | 3.3                            |                                | 3.3                            | 2.4                            | 0.9                                  |   |
| SPARKY U                | 13.1                           | 0.05     |          | 0.7                            |                                | 0.7                            |                                | 0.7                                  |   |
| SPARKY V                | 116.0                          | 0.05     |          | 5.8                            |                                | 5.8                            | 3.6                            | 2.2                                  |   |
| SPARKY W                | 234.0                          | 0.05     |          | 11.7                           |                                | 11.7                           | 2.5                            | 9.2                                  |   |
| SPARKY X                | 264.0                          | 0.07     |          | 18.5                           |                                | 18.5                           | 8.7                            | 9.8                                  |   |
| SPARKY Z                | 70.6                           | 0.05     |          | 3.5                            |                                | 3.5                            | 0.3                            | 3.2                                  |   |
| SPARKY AA               | 60.2                           | 0.05     |          | 3.0                            |                                | 3.0                            | 0.1                            | 2.9                                  |   |
| SPARKY A&B TOTAL        | 11 500.0                       |          |          | 845.0                          | 865.0                          | 1 710.0                        | 1 134.3                        | 575.7                                |   |
| PRIMARY AREA            | 3 600.0                        | 0.05     |          | 180.0                          |                                | 180.0                          |                                |                                      |   |
| WATER FLOOD AREA        | 7 860.0                        | <0.09    | 0.11     | 665.0                          | 865.0                          | 1 530.0                        |                                |                                      |   |
| SPARKY N R & S          | 1 910.0                        | 0.05     |          | 95.6                           |                                | 95.6                           | 45.9                           | 49.7                                 |   |
| GENERAL PETROLEUM A     | 67.7                           | 0.08     |          | 5.4                            |                                | 5.4                            | 2.2                            | 3.2                                  |   |
| REX A                   | 90.4                           | 0.05     |          | 4.5                            |                                | 4.5                            | 0.7                            | 3.8                                  |   |
| LLOYDMINSTER A          | 391.0                          | 0.05     |          | 19.6                           |                                | 19.6                           | 9.4                            | 10.2                                 |   |
| LLOYDMINSTER C          | 2 850.0                        | 0.10     |          | 285.0                          |                                | 285.0                          | 174.7                          | 110.3                                |   |
| LLOYDMINSTER D TOTAL    | 1 730.0                        |          |          | 173.0                          | 132.0                          | 305.0                          | 242.8                          | 62.2                                 |   |
| PRIMARY AREA            | 78.6                           | 0.10     |          | 7.9                            |                                | 7.9                            |                                |                                      |   |
| WATER FLOOD AREA        | 1 650.0                        | 0.10     | 0.08     | 165.0                          | 132.0                          | 297.0                          |                                |                                      |   |
| LLOYDMINSTER E          | 466.0                          | 0.03     |          | 14.0                           |                                | 14.0                           | 1.3                            | 12.7                                 |   |
| LLOYDMINSTER F          | 373.0                          | <0.02    |          | 6.9                            |                                | 6.9                            | 1.3                            | 5.6                                  |   |
| LLOYDMINSTER G TOTAL    | 3 420.0                        |          |          | 119.0                          | 35.4                           | 155.0                          | 48.0                           | 107.0                                |   |
| PRIMARY AREA            | 1 650.0                        | 0.04     |          | 66.0                           |                                | 66.0                           |                                |                                      |   |
| WATER FLOOD AREA        | 1 770.0                        | 0.03     | 0.02     | 53.1                           | 35.4                           | 88.5                           |                                |                                      |   |
| LLOYDMINSTER H          | 148.0                          | 0.05     |          | 7.4                            |                                | 7.4                            | 1.3                            | 6.1                                  |   |
| LLOYDMINSTER I          | 162.0                          | 0.05     |          | 8.1                            |                                | 8.1                            |                                | 8.1                                  |   |
| LLOYDMINSTER J          | 157.0                          | 0.10     |          | 15.7                           |                                | 15.7                           | 0.5                            | 15.2                                 |   |
| DINA A                  | 107.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |   |
| CHERHILL 056-05W5       |                                |          |          |                                |                                |                                |                                |                                      |   |
| BANFF B                 | 1 000.0                        | 0.06     |          | 60.0                           |                                | 60.0                           | 27.9                           | 32.1                                 |   |
| BANFF C                 | 1 100.0                        | 0.10     |          | 110.0                          |                                | 110.0                          | 29.8                           | 80.2                                 |   |
| BANFF F                 | 2 620.0                        | 0.10     |          | 262.0                          |                                | 262.0                          | 36.3                           | 225.7                                |   |
| BANFF Q                 | 113.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |   |
| BANFF R                 | 306.0                          | 0.10     |          | 30.6                           |                                | 30.6                           | 5.4                            | 25.2                                 |   |
| BANFF V                 | 217.0                          | 0.10     |          | 21.7                           |                                | 21.7                           | 3.3                            | 18.4                                 |   |
| CHIGWELL 041-24W4       |                                |          |          |                                |                                |                                |                                |                                      |   |
| MANNVILLE C             | 342.0                          | <0.01    |          | 1.7                            |                                | 1.7                            | 1.7                            |                                      |   |
| CHIN COULEE 007-14W4    |                                |          |          |                                |                                |                                |                                |                                      |   |
| BASAL MANNVILLE A TOTAL | 3 890.0                        |          |          | 389.0                          | 502.0                          | 891.0                          | 772.6                          | 118.4                                |   |
| PRIMARY AREA            | 548.0                          | 0.10     |          | 54.8                           |                                | 54.8                           |                                |                                      |   |
| WATER FLOOD AREA        | 3 340.0                        | 0.10     | 0.15     | 334.0                          | 502.0                          | 836.0                          |                                |                                      |   |
| COMPEER 033-02W4        |                                |          |          |                                |                                |                                |                                |                                      |   |
| LOWER MANNVILLE A       | 118.0                          | 0.10     |          | 11.8                           |                                | 11.8                           | 7.1                            | 4.7                                  |   |
| LOWER MANNVILLE B       | 158.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |   |
| LOWER MANNVILLE C       | 156.0                          | 0.05     |          | 7.8                            |                                | 7.8                            | 2.8                            | 5.0                                  |   |
| BANFF A                 | 130.0                          | <0.02    |          | 2.1                            |                                | 2.1                            | 2.1                            |                                      |   |
| BANFF B                 | 255.0                          | 0.05     |          | 12.8                           |                                | 12.8                           | 2.9                            | 9.9                                  |   |
| CONNORSVILLE 025-15W4   |                                |          |          |                                |                                |                                |                                |                                      |   |
| LOWER MANNVILLE C       | 27.0                           | 0.10     |          | 2.7                            |                                | 2.7                            |                                | 2.7                                  |   |
| CONRAD 006-15W4         |                                |          |          |                                |                                |                                |                                |                                      |   |
| ELLIS                   | 2 540.0                        | 0.21     |          | 533.0                          |                                | 533.0                          | 501.9                          | 31.1                                 |   |



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 40    | 9.45                        | 0.320    | 0.29          | 0.97      | 9                              | 972               | 33   | 4 010               | 592.2                      | 1972         | 85 12 - GPP                    |
| 80    | 3.36                        | 0.300    | 0.29          | 0.99      | 12                             | 956               | 24   | 4 080               | 564.6                      | 1978         | 85 12 - GPP                    |
| 16    | 2.50                        | 0.300    | 0.35          | 0.97      | 20                             | 940               | 35   | 4 030               | 566.4                      | 1983         | 85 05                          |
| 807   |                             |          |               |           | 14                             | 910               | 24   | 4 790               | 643.8                      | 1969         | 84 12                          |
| 244   | 2.50                        | 0.290    | 0.26          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 563   | 2.05                        | 0.290    | 0.26          | 0.96      |                                |                   |      |                     |                            |              | - GPP                          |
| 450   |                             |          |               |           | 20                             | 898               | 28   | 4 730               | 628.3                      | 1971         | 83 05                          |
| 125   | 2.56                        | 0.307    | 0.16          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 325   | 2.72                        | 0.307    | 0.16          | 0.96      |                                |                   |      |                     |                            |              | - GPP                          |
| 65    | 3.66                        | 0.310    | 0.29          | 0.96      | 16                             | 921               | 10   | 5 020               | 610.8                      | 1973         | 83 12                          |
| 32    | 2.42                        | 0.300    | 0.28          | 0.96      | 18                             | 932               | 15   | 4 700               | 616.8                      | 1977         | 83 04                          |
| 80    | 2.65                        | 0.280    | 0.40          | 0.96      | 24                             | 918               | 16   | 4 890               | 643.5                      | 1978         | 81 12                          |
| 48    | 1.00                        | 0.260    | 0.45          | 0.97      | 12                             | 945               | 29   | 4 672               | 650.8                      | 1979         | 81 12 - GPP                    |
| 16    | 0.90                        | 0.190    | 0.50          | 0.96      | 11                             | 969               | 28   | 4 922               | 666.9                      | 1980         | 81 09                          |
| 16    | 3.00                        | 0.300    | 0.16          | 0.96      | 14                             | 934               | 30   | 4 529               | 622.5                      | 1981         | 82 05                          |
| 32    | 6.28                        | 0.240    | 0.50          | 0.97      | 12                             | 925               | 25   | 3 200               | 658.0                      | 1982         | 83 05 - GPP                    |
| 48    | 2.65                        | 0.300    | 0.28          | 0.96      | 18                             | 933               | 20   | 3 550               | 623.8                      | 1978         | 84 09                          |
| 16    | 2.50                        | 0.280    | 0.35          | 0.97      | 10                             | 946               | 33   | 4 702               | 610.4                      | 1983         | 84 04                          |
| 32    | 1.00                        | 0.280    | 0.30          | 0.96      | 20                             | 898               | 28   | 4 690               | 652.5                      | 1981         | 84 07                          |
| 1 254 |                             |          |               |           | 16                             | 910               | 31   | 4 620               | 653.2                      | 1952         | 84 12                          |
| 400   | 4.62                        | 0.290    | 0.30          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 854   | 4.72                        | 0.290    | 0.30          | 0.96      |                                |                   |      |                     |                            |              | - GPP                          |
| 556   | 1.70                        | 0.270    | 0.38          | 0.96      | 18                             | 921               | 24   | 4 522               | 624.1                      | 1969         | 83 12                          |
| 16    | 3.00                        | 0.210    | 0.30          | 0.96      | 15                             | 970               | 25   | 3 750               | 662.5                      | 1981         | 85 12 - GPP                    |
| 16    | 4.50                        | 0.230    | 0.40          | 0.91      | 14                             | 985               | 28   | 6 710               | 627.8                      | 1983         | 84 02 - GPP                    |
| 32    | 6.53                        | 0.300    | 0.35          | 0.96      | 14                             | 952               | 18   | 5 100               | 659.7                      | 1963         | 79 08 - GPP                    |
| 699   | 1.94                        | 0.300    | 0.27          | 0.96      | 14                             | 940               | 25   | 4 520               | 665.1                      | 1953         | 82 12 - GPP                    |
| 422   |                             |          |               |           | 14                             | 940               | 24   | 4 730               | 696.6                      | 1968         | 82 05                          |
| 32    | 1.42                        | 0.280    | 0.36          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 390   | 1.71                        | 0.300    | 0.15          | 0.97      |                                |                   |      |                     |                            |              | - GPP                          |
| 64    | 3.70                        | 0.270    | 0.24          | 0.96      | 14                             | 940               | 24   | 4 960               | 699.8                      | 1969         | 85 12                          |
| 96    | 1.90                        | 0.300    | 0.29          | 0.96      | 14                             | 904               | 27   | 4 670               | 650.9                      | 1974         | 80 12                          |
| 369   |                             |          |               |           | 15                             | 970               | 25   | 3 640               | 648.9                      | 1978         | 85 11 - GPP                    |
| 193   | 4.39                        | 0.290    | 0.30          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 176   | 5.16                        | 0.290    | 0.30          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 16    | 4.50                        | 0.330    | 0.35          | 0.96      | 18                             | 931               | 22   | 4 630               | 644.8                      | 1982         | 82 07                          |
| 16    | 6.00                        | 0.270    | 0.35          | 0.96      | 18                             | 954               | 18   | 4 685               | 691.7                      | 1983         | 84 07                          |
| 16    | 6.00                        | 0.260    | 0.35          | 0.97      | 20                             | 955               | 27   | 4 956               | 650.5                      | 1984         | 85 05                          |
| 16    | 3.05                        | 0.300    | 0.24          | 0.97      | 13                             | 947               | 27   | 5 070               | 672.1                      | 1978         | 79 01 - SUSP 78 09             |
| 249   | 5.40                        | 0.140    | 0.40          | 0.89      | 51                             | 915               | 43   | 10 890              | 1 393.2                    | 1969         | 82 10                          |
| 112   | 9.30                        | 0.180    | 0.32          | 0.86      | 48                             | 911               | 64   | 10 920              | 1 394.0                    | 1977         | 83 10                          |
| 160   | 16.30                       | 0.170    | 0.32          | 0.87      | 50                             | 910               | 45   | 11 381              | 1 461.6                    | 1981         | 85 06                          |
| 32    | 3.78                        | 0.196    | 0.45          | 0.87      | 50                             | 904               | 45   | 10 411              | 1 286.6                    | 1984         | 85 12 - SUSP 85 08             |
| 16    | 18.26                       | 0.178    | 0.36          | 0.92      | 45                             | 947               | 44   | 10 087              | 1 457.7                    | 1984         | 85 06                          |
| 32    | 11.54                       | 0.110    | 0.40          | 0.89      | 44                             | 935               | 50   | 11 185              | 1 376.6                    | 1981         | 85 11                          |
| 65    | 4.88                        | 0.170    | 0.25          | 0.85      | 69                             | 887               | 50   | 11 310              | 1 485.6                    | 1969         | 74 12 - ABAND 73 08            |
| 1 414 |                             |          |               |           | 5                              | 915               | 32   | 9 791               | 917.8                      | 1960         | 83 03 - GPP                    |
| 190   | 2.56                        | 0.194    | 0.40          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 1 224 | 2.42                        | 0.194    | 0.40          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 32    | 2.80                        | 0.230    | 0.37          | 0.92      | 35                             | 934               | 32   | 6 158               | 898.2                      | 1978         | 79 10                          |
| 16    | 5.00                        | 0.280    | 0.25          | 0.94      | 27                             | 959               | 28   | 8 150               | 885.3                      | 1980         | 83 12 - SUSP 80 12             |
| 32    | 2.40                        | 0.330    | 0.35          | 0.94      | 25                             | 960               | 28   | 5 740               | 842.8                      | 1984         | 84 09                          |
| 16    | 6.10                        | 0.200    | 0.30          | 0.95      | 18                             | 959               | 36   | 6 206               | 850.0                      | 1955         | 85 10 - SUSP 85 08             |
| 32    | 4.13                        | 0.290    | 0.30          | 0.95      | 21                             | 937               | 28   | 4 400               | 824.8                      | 1984         | 85 10                          |
| 64    | 1.50                        | 0.080    | 0.60          | 0.89      | 52                             | 893               | 32   | 8 890               | 990.9                      | 1978         | 79 02 - SUSP 78 12             |
| 1 475 | 1.52                        | 0.198    | 0.35          | 0.88      | 53                             | 904               | 30   | 10 340              | 926.6                      | 1944         | 85 12 - GPP                    |

TABLE 2-4

| FIELD<br>POOL        | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|----------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                      | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                      |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                      | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| COUNTRESS 021-16W4   |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B    | 3 810.0                        |          |          | 370.0                          | 900.0                          | 1 270.0                        | 1 098.4                        | 171.6                                |
| TOTAL                |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA         | 208.0                          | 0.05     |          | 10.4                           |                                | 10.4                           |                                |                                      |
| WATER FLOOD AREA     | 3 600.0                        | 0.10     | 0.25     | 360.0                          | 900.0                          | 1 260.0                        |                                |                                      |
| UPPER MANNVILLE D    | 12 900.0                       |          |          | 1 290.0                        | 4 120.0                        | 5 410.0                        | 4 654.5                        | 755.5                                |
| TOTAL                |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA         | 473.0                          | 0.10     |          | 47.3                           |                                | 47.3                           |                                |                                      |
| WATER FLOOD AREA     | 12 400.0                       | 0.10     | 0.33     | 1 240.0                        | 4 120.0                        | 5 360.0                        |                                |                                      |
| UPPER MANNVILLE F    | 1 750.0                        |          |          | 164.0                          | 445.0                          | 609.0                          | 485.8                          | 123.2                                |
| TOTAL                |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA         | 157.0                          | 0.03     |          | 4.7                            |                                | 4.7                            |                                |                                      |
| WATER FLOOD AREA     | 1 590.0                        | 0.10     | 0.28     | 159.0                          | 445.0                          | 604.0                          |                                |                                      |
| UPPER MANNVILLE H    | 5 550.0                        |          |          | 555.0                          | 1 620.0                        | 2 180.0                        | 1 872.0                        | 308.0                                |
| TOTAL                |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA         | 145.0                          | 0.10     |          | 14.5                           |                                | 14.5                           |                                |                                      |
| WATER FLOOD AREA     | 5 400.0                        | 0.10     | 0.30     | 540.0                          | 1 620.0                        | 2 160.0                        |                                |                                      |
| UPPER MANNVILLE J    | 429.0                          | <0.09    |          | 37.8                           |                                | 37.8                           | 33.3                           | 4.5                                  |
| UPPER MANNVILLE L    | 208.0                          | 0.10     |          | 20.8                           |                                | 20.8                           | 17.0                           | 3.8                                  |
| UPPER MANNVILLE M    | 556.0                          | 0.15     | 0.15     | 83.4                           | 83.4                           | 167.0                          | 118.8                          | 48.2                                 |
| WATER FLOOD          |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE O    | 2 540.0                        | 0.15     | 0.32     | 381.0                          | 814.0                          | 1 200.0                        | 624.5                          | 575.5                                |
| WATER FLOOD          |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE T    | 51.0                           | 0.10     |          | 5.1                            |                                | 5.1                            | 1.2                            | 3.9                                  |
| UPPER MANNVILLE U    | 170.0                          | 0.10     |          | 17.0                           |                                | 17.0                           | 4.4                            | 12.6                                 |
| UPPER MANNVILLE Y    | 144.0                          | 0.10     |          | 14.4                           |                                | 14.4                           |                                | 14.4                                 |
| UPPER MANNVILLE HH   | 68.8                           | 0.10     |          | 6.9                            |                                | 6.9                            | 1.8                            | 5.1                                  |
| UPPER MANNVILLE II   | 191.0                          | 0.10     |          | 19.1                           |                                | 19.1                           | 2.1                            | 17.0                                 |
| UPPER MANNVILLE JJ   | 17.7                           | 0.10     |          | 1.8                            |                                | 1.8                            | 0.3                            | 1.5                                  |
| LOWER MANNVILLE A    | 211.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LOWER MANNVILLE C    | 319.0                          | 0.01     |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| LOWER MANNVILLE F    | 134.0                          | 0.08     |          | 10.7                           |                                | 10.7                           | 5.8                            | 4.9                                  |
| LOWER MANNVILLE G    | 251.0                          | 0.05     |          | 12.6                           |                                | 12.6                           | 3.3                            | 9.3                                  |
| LOWER MANNVILLE H    | 196.0                          | 0.02     |          | 3.9                            |                                | 3.9                            | 0.8                            | 3.1                                  |
| LOWER MANNVILLE I    | 61.7                           | 0.05     |          | 3.1                            |                                | 3.1                            |                                | 3.1                                  |
| LOWER MANNVILLE J    | 105.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| LOWER MANNVILLE K    | 87.0                           | 0.03     |          | 2.6                            |                                | 2.6                            | 0.2                            | 2.4                                  |
| LOWER MANNVILLE L    | 257.0                          | 0.02     |          | 5.1                            |                                | 5.1                            | 0.7                            | 4.4                                  |
| LOWER MANNVILLE N    | 124.0                          | 0.05     |          | 6.2                            |                                | 6.2                            | 0.1                            | 6.1                                  |
| LOWER MANNVILLE D    | 65.6                           | 0.05     |          | 3.3                            |                                | 3.3                            | 0.5                            | 2.8                                  |
| LOWER MANNVILLE P    | 117.0                          | 0.05     |          | 5.9                            |                                | 5.9                            | 0.1                            | 5.8                                  |
| LOWER MANNVILLE Q    | 218.0                          | 0.05     |          | 10.9                           |                                | 10.9                           |                                | 10.9                                 |
| BASAL QUARTZ B       | 126.0                          | <0.03    |          | 3.1                            |                                | 3.1                            | 3.1                            |                                      |
| BASAL QUARTZ F       | 21.0                           | 0.10     |          | 2.1                            |                                | 2.1                            |                                | 2.1                                  |
| PEKISKD B            | 66.6                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| PEKISKD C            | 88.1                           | 0.05     |          | 4.4                            |                                | 4.4                            | 0.1                            | 4.3                                  |
| DAVID 041-03W4       |                                |          |          |                                |                                |                                |                                |                                      |
| LLOYDMINSTER A TOTAL | 2 380.0                        |          |          | 309.0                          | 268.0                          | 577.0                          | 440.6                          | 136.4                                |
| PRIMARY AREA         | 149.0                          | 0.13     |          | 19.4                           |                                | 19.4                           |                                |                                      |
| WATER FLOOD AREA     | 2 230.0                        | 0.13     | 0.12     | 290.0                          | 268.0                          | 558.0                          |                                |                                      |
| LLOYDMINSTER B       | 461.0                          | 0.06     |          | 27.7                           |                                | 27.7                           | 21.2                           | 6.5                                  |
| LLOYDMINSTER C       | 3 030.0                        | 0.13     |          | 390.0                          | ERSD                           | 390.0                          | 172.9                          | 217.1                                |
| LLOYDMINSTER D       | 14.7                           | 0.05     |          | 0.7                            |                                | 0.7                            |                                | 0.7                                  |
| LLOYDMINSTER E       | 129.0                          | 0.05     |          | 6.5                            |                                | 6.5                            | 1.1                            | 5.4                                  |
| CUMMINGS A           | 112.0                          | 0.05     |          | 5.6                            |                                | 5.6                            | 2.4                            | 3.2                                  |
| DINA A               | 345.0                          | 0.05     |          | 17.3                           |                                | 17.3                           | 7.2                            | 10.1                                 |
| DINA C               | 114.0                          | 0.03     |          | 3.4                            |                                | 3.4                            |                                | 3.4                                  |
| DERWENT 054-07W4     |                                |          |          |                                |                                |                                |                                |                                      |
| MCLAREN A            | 179.0                          | 0.05     |          | 9.0                            |                                | 9.0                            | 1.4                            | 7.6                                  |
| DINA 044-01W4        |                                |          |          |                                |                                |                                |                                |                                      |
| SPARKY               | 863.0                          | 0.10     |          | 86.3                           |                                | 86.3                           | 65.7                           | 20.6                                 |
| EDGERTON 045-04W4    |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY G             | 73.1                           | 0.05     |          | 3.7                            |                                | 3.7                            | 1.1                            | 2.6                                  |
| SPARKY A             | 95.2                           | 0.05     |          | 4.8                            |                                | 4.8                            | 0.7                            | 4.1                                  |
| GENERAL PETROLEUM A  | 325.0                          | 0.05     |          | 16.3                           |                                | 16.3                           | 0.1                            | 16.2                                 |
| LLOYDMINSTER A       | 151.0                          | 0.05     |          | 7.6                            |                                | 7.6                            | 6.0                            | 1.6                                  |
| LLOYDMINSTER B       | 200.0                          | 0.05     |          | 10.0                           |                                | 10.0                           | 0.5                            | 9.5                                  |
| LLOYDMINSTER C       | 53.1                           | 0.05     |          | 2.7                            |                                | 2.7                            | 0.6                            | 2.1                                  |
| LLOYDMINSTER D       | 55.6                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 576   |                             |          |               |           | 45                             | 887               | 37   | 10 780              | 1 083.8                    | 1965         | 85 08                          |
| 48    | 3.80                        | 0.220    | 0.24          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 528   | 4.09                        | 0.240    | 0.22          | 0.89      |                                |                   |      |                     |                            |              | - GPP                          |
| 1 538 |                             |          |               |           | 45                             | 904               | 36   | 10 840              | 1 122.2                    | 1967         | 85 03                          |
| 124   | 2.48                        | 0.234    | 0.26          | 0.89      |                                |                   |      |                     |                            |              | - GPP                          |
| 1 414 | 4.93                        | 0.250    | 0.20          | 0.89      |                                |                   |      |                     |                            |              | - GPP                          |
| 194   |                             |          |               |           | 45                             | 887               | 34   | 10 850              | 1 075.3                    | 1967         | 82 12 - GPP                    |
| 32    | 3.20                        | 0.230    | 0.25          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 162   | 6.40                        | 0.230    | 0.25          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 679   |                             |          |               |           | 50                             | 898               | 32   | 11 090              | 1 072.0                    | 1968         | 85 12                          |
| 16    | 5.50                        | 0.240    | 0.23          | 0.89      |                                |                   |      |                     |                            |              |                                |
| 663   | 5.33                        | 0.220    | 0.22          | 0.89      |                                |                   |      |                     |                            |              | - GPP                          |
| 128   | 2.40                        | 0.220    | 0.30          | 0.89      | 44                             | 887               | 33   | 10 950              | 1 075.8                    | 1970         | 81 06 - GPP                    |
| 65    | 2.29                        | 0.207    | 0.24          | 0.89      | 45                             | 881               | 39   | 10 690              | 1 082.3                    | 1971         | 72 08                          |
| 32    | 14.02                       | 0.230    | 0.38          | 0.86      | 59                             | 892               | 38   | 11 130              | 1 079.9                    | 1972         | 78 06 - GPP                    |
| 170   | 8.14                        | 0.260    | 0.17          | 0.85      | 51                             | 915               | 36   | 10 670              | 1 067.7                    | 1973         | 77 12 - GPP                    |
| 65    | 0.91                        | 0.150    | 0.34          | 0.86      | 60                             | 892               | 32   | 10 230              | 1 049.0                    | 1977         | 78 12 - SUSP 83 10             |
| 32    | 4.00                        | 0.230    | 0.35          | 0.89      | 41                             | 890               | 33   | 9 720               | 1 079.5                    | 1978         | 79 02 - GPP                    |
| 64    | 3.50                        | 0.120    | 0.40          | 0.89      | 40                             | 861               | 36   | 9 760               | 1 056.0                    | 1980         | 81 09                          |
| 32    | 1.50                        | 0.230    | 0.30          | 0.89      | 43                             | 887               | 37   | 11 056              | 1 108.3                    | 1983         | 84 05                          |
| 32    | 3.40                        | 0.240    | 0.18          | 0.89      | 45                             | 887               | 38   | 9 134               | 1 134.0                    | 1984         | 85 03                          |
| 16    | 1.50                        | 0.160    | 0.48          | 0.89      | 47                             | 900               | 35   | 8 500               | 1 077.3                    | 1984         | 85 03                          |
| 32    | 5.79                        | 0.250    | 0.50          | 0.90      | 41                             | 898               | 34   | 11 480              | 1 105.8                    | 1968         | 73 12 - ABAND 72 11            |
| 65    | 2.74                        | 0.270    | 0.25          | 0.89      | 42                             | 915               | 38   | 10 800              | 1 139.0                    | 1974         | 83 12 - ABAND 77 01            |
| 32    | 4.30                        | 0.190    | 0.42          | 0.89      | 48                             | 892               | 34   | 11 066              | 1 131.1                    | 1975         | 85 12                          |
| 64    | 4.00                        | 0.160    | 0.28          | 0.85      | 66                             | 864               | 34   | 10 800              | 1 113.9                    | 1979         | 80 01                          |
| 64    | 5.00                        | 0.160    | 0.55          | 0.85      | 75                             | 869               | 36   | 10 635              | 1 347.5                    | 1980         | 84 05 - GPP                    |
| 64    | 1.80                        | 0.140    | 0.55          | 0.85      | 53                             | 855               | 41   | 10 252              | 1 334.9                    | 1980         | 81 08 - SUSP 81 05             |
| 32    | 3.60                        | 0.170    | 0.40          | 0.89      | 38                             | 910               | 37   | 11 214              | 1 098.6                    | 1981         | 82 09 - ABAND 83 03            |
| 64    | 2.00                        | 0.160    | 0.50          | 0.85      | 58                             | 865               | 40   | 10 797              | 1 362.2                    | 1981         | 83 10 - SUSP 84 05             |
| 64    | 7.50                        | 0.140    | 0.55          | 0.85      | 76                             | 869               | 36   | 10 272              | 1 357.5                    | 1981         | 84 05 - GPP                    |
| 32    | 3.30                        | 0.220    | 0.40          | 0.89      | 46                             | 910               | 36   | 10 794              | 1 109.0                    | 1983         | 84 06                          |
| 32    | 2.56                        | 0.150    | 0.40          | 0.89      | 37                             | 862               | 35   | 10 685              | 1 085.3                    | 1984         | 84 11                          |
| 32    | 3.80                        | 0.180    | 0.40          | 0.89      | 44                             | 900               | 34   | 10 385              | 1 102.6                    | 1979         | 85 03                          |
| 64    | 4.70                        | 0.165    | 0.50          | 0.88      | 47                             | 898               | 38   | 7 700               | 1 286.5                    | 1984         | 85 06                          |
| 32    | 2.96                        | 0.239    | 0.35          | 0.85      | 47                             | 915               | 38   | 10 160              | 1 310.6                    | 1964         | 70 05 - ABAND 78 04            |
| 32    | 1.30                        | 0.175    | 0.68          | 0.90      | 40                             | 905               | 35   | 11 010              | 1 047.8                    | 1984         | 84 12                          |
| 64    | 4.50                        | 0.040    | 0.35          | 0.89      | 43                             | 864               | 38   | 10 300              | 1 174.3                    | 1980         | 85 12 - SUSP 83 09             |
| 64    | 3.60                        | 0.060    | 0.25          | 0.85      | 64                             | 875               | 39   | 10 472              | 1 363.7                    | 1981         | 84 12 - SUSP 85 08             |
| 275   |                             |          |               |           | 44                             | 931               | 28   | 5 480               | 751.6                      | 1969         | 85 11                          |
| 32    | 2.07                        | 0.290    | 0.20          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 243   | 4.35                        | 0.290    | 0.25          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 65    | 3.66                        | 0.270    | 0.25          | 0.96      | 23                             | 910               | 24   | 5 480               | 741.9                      | 1969         | 85 12                          |
| 464   | 3.14                        | 0.270    | 0.18          | 0.94      | 18                             | 911               | 28   | 5 380               | 766.3                      | 1975         | 85 10                          |
| 16    | 1.50                        | 0.160    | 0.60          | 0.96      | 15                             | 925               | 32   | 4 555               | 776.3                      | 1982         | 82 12                          |
| 32    | 2.00                        | 0.300    | 0.30          | 0.96      | 14                             | 908               | 30   | 2 800               | 755.6                      | 1983         | 85 10                          |
| 64    | 1.00                        | 0.270    | 0.33          | 0.97      | 7                              | 956               | 29   | 3 220               | 792.0                      | 1981         | 85 08                          |
| 32    | 5.41                        | 0.270    | 0.24          | 0.97      | 11                             | 917               | 31   | 2 800               | 788.5                      | 1981         | 84 10 - GPP                    |
| 16    | 3.50                        | 0.300    | 0.30          | 0.97      | 7                              | 910               | 27   | 1 806               | 779.0                      | 1984         | 85 10                          |
| 16    | 6.00                        | 0.280    | 0.32          | 0.98      | 9                              | 987               | 23   | 3 800               | 498.5                      | 1980         | 81 01 - GPP                    |
| 226   | 2.06                        | 0.290    | 0.32          | 0.94      | 13                             | 972               | 25   | 4 340               | 554.7                      | 1948         | 85 12 - GPP                    |
| 16    | 2.90                        | 0.250    | 0.35          | 0.97      | 13                             | 938               | 25   | 4 052               | 644.0                      | 1979         | 82 06                          |
| 16    | 8.00                        | 0.200    | 0.60          | 0.93      | 27                             | 855               | 29   | 3 800               | 648.0                      | 1984         | 85 03                          |
| 64    | 4.20                        | 0.260    | 0.50          | 0.93      | 27                             | 855               | 29   | 3 800               | 640.2                      | 1984         | 85 05                          |
| 16    | 5.18                        | 0.240    | 0.21          | 0.96      | 12                             | 940               | 25   | 4 275               | 685.5                      | 1975         | 78 12 - SUSP 83 05             |
| 16    | 4.90                        | 0.330    | 0.20          | 0.96      | 12                             | 934               | 25   | 4 260               | 674.5                      | 1977         | 78 05 - SUSP 85 01             |
| 16    | 2.00                        | 0.270    | 0.36          | 0.96      | 14                             | 959               | 33   | 4 700               | 655.2                      | 1980         | 80 07 - SUSP 84 08             |
| 16    | 2.00                        | 0.270    | 0.33          | 0.96      | 12                             | 951               | 25   | 3 800               | 686.5                      | 1980         | 84 12 - SUSP 83 05             |

TABLE 2-4

| FIELD<br>POOL                            | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>EDGERTON 045-04W4<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| LLOYDMINSTER E                           | 131.0                          | 0.08     |          | 10.5                           |                                | 10.5                           | 5.3                            | 5.2                                  |
| DETITAL B                                | 9.8                            | 0.05     |          | 0.5                            |                                | 0.5                            |                                | 0.5                                  |
| D-2 A                                    | 3 250.0                        | 0.10     |          | 325.0                          |                                | 325.0                          | 25.8                           | 299.2                                |
| <b>ELK POINT 056-06W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| GENERAL PETROLEUM A                      | 112.0                          | 0.01     |          | 1.1                            |                                | 1.1                            |                                | 1.1                                  |
| GENERAL PETROLEUM B                      | 147.0                          | 0.01     |          | 1.5                            |                                | 1.5                            | 0.7                            | 0.8                                  |
| <b>ENCHANT 014-16W4</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B                        | 219.0                          | 0.06     |          | 13.1                           |                                | 13.1                           | 10.6                           | 2.5                                  |
| UPPER MANNVILLE D                        | 605.0                          | <0.01    |          | 2.6                            |                                | 2.6                            | 2.6                            |                                      |
| UPPER MANNVILLE H                        | 40.4                           | 0.10     |          | 4.0                            |                                | 4.0                            | 3.3                            | 0.7                                  |
| UPPER MANNVILLE I                        | 112.0                          | 0.10     |          | 11.3                           |                                | 11.3                           | 3.1                            | 8.2                                  |
| UPPER MANNVILLE M                        | 50.7                           | 0.05     |          | 2.5                            |                                | 2.5                            | 0.2                            | 2.3                                  |
| LOWER MANNVILLE B                        | 332.0                          | <0.01    |          | 1.2                            |                                | 1.2                            | 1.2                            |                                      |
| LOWER MANNVILLE E                        | 122.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LOWER MANNVILLE F                        | 178.0                          | 0.05     |          | 8.9                            |                                | 8.9                            | 1.0                            | 7.9                                  |
| SUNBURST A                               | 189.0                          | 0.01     |          | 1.9                            |                                | 1.9                            | 1.8                            | 0.1                                  |
| <b>ESTHER 032-02W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B                        | 1 000.0                        | 0.10     |          | 100.0                          |                                | 100.0                          | 62.3                           | 37.7                                 |
| UPPER MANNVILLE F                        | 88.0                           | 0.10     |          | 8.8                            |                                | 8.8                            | 3.5                            | 5.3                                  |
| UPPER MANNVILLE I                        | 58.7                           | 0.10     |          | 5.9                            |                                | 5.9                            | 2.8                            | 3.1                                  |
| UPPER MANNVILLE J                        | 68.4                           | 0.05     |          | 3.4                            |                                | 3.4                            | 0.1                            | 3.3                                  |
| BANFF F                                  | 87.6                           | 0.10     |          | 8.8                            |                                | 8.8                            | 6.9                            | 1.9                                  |
| BANFF G                                  | 36.5                           | 0.05     |          | 1.8                            |                                | 1.8                            | 1.4                            | 0.4                                  |
| BANFF H                                  | 30.8                           | 0.05     |          | 1.5                            |                                | 1.5                            | 0.3                            | 1.2                                  |
| BAKKEN A                                 | 45.0                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| <b>EYREMORE 018-18W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                        | 331.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| <b>FERGUSON 003-17W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                        | 373.0                          | 0.05     |          | 18.7                           |                                | 18.7                           | 5.9                            | 12.8                                 |
| <b>GILBY 041-03W5</b>                    |                                |          |          |                                |                                |                                |                                |                                      |
| RUNDLE K                                 | 625.0                          | 0.02     |          | 12.6                           |                                | 12.6                           | 9.0                            | 3.6                                  |
| <b>GLADYS 020-27W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| RUNDLE D                                 | 366.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| <b>GLENEVIS 055-04W5</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| BANFF                                    | 3 620.0                        | 0.45     |          | 1 630.0                        |                                | 1 630.0                        | 1 260.9                        | 359.1                                |
| <b>GRAINDALE 026-02W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE C                        | 83.0                           | 0.05     |          | 4.2                            |                                | 4.2                            | 0.8                            | 3.4                                  |
| LOWER MANNVILLE D                        | 83.0                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| <b>GRAND FORKS 011-13W4</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                        | 170.0                          | <0.01    |          | 1.0                            |                                | 1.0                            | 1.0                            |                                      |
| UPPER MANNVILLE B                        | 2 950.0                        | 0.15     | 0.27     | 443.0                          | 797.0                          | 1 240.0                        | 881.6                          | 358.4                                |
| WATER FLOOD                              |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE E                        | 48.5                           | 0.05     |          | 2.4                            |                                | 2.4                            | 1.3                            | 1.1                                  |
| LOWER MANNVILLE B                        | 676.0                          | 0.15     |          | 101.0                          |                                | 101.0                          | 92.0                           | 9.0                                  |
| LOWER MANNVILLE C                        | 1 880.0                        | 0.15     |          | 282.0                          |                                | 282.0                          | 235.4                          | 46.6                                 |
| LOWER MANNVILLE D                        | 15 600.0                       | 0.12     | 0.28     | 1 870.0                        | 4 360.0                        | 6 230.0                        | 4 361.6                        | 1 868.4                              |
| WATER FLOOD                              |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE E                        | 3 600.0                        | <0.30    | 0.13     | 1 080.0                        | 450.0                          | 1 530.0                        | 991.7                          | 538.3                                |
| WATER FLOOD                              |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE F                        | 900.0                          |          |          | 90.0                           | 120.0                          | 210.0                          | 165.1                          | 44.9                                 |
| TOTAL                                    |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                             | 100.0                          | 0.10     |          | 10.0                           |                                | 10.0                           |                                |                                      |
| WATER FLOOD AREA                         | 800.0                          | 0.10     | 0.15     | 80.0                           | 120.0                          | 200.0                          |                                |                                      |
| LOWER MANNVILLE G                        | 2 060.0                        |          |          | 300.0                          | 700.0                          | 1 000.0                        | 560.5                          | 439.5                                |
| TOTAL                                    |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                             | 64.8                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                |                                      |
| WATER FLOOD AREA                         | 2 000.0                        | 0.15     | 0.35     | 300.0                          | 700.0                          | 1 000.0                        |                                |                                      |
| LOWER MANNVILLE H                        | 524.0                          | 0.30     | 0.05     | 157.0                          | 26.2                           | 183.0                          | 85.7                           | 97.3                                 |
| WATER FLOOD                              |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE I                        | 421.0                          | 0.08     |          | 33.7                           |                                | 33.7                           | 24.3                           | 9.4                                  |
| LOWER MANNVILLE J                        | 300.0                          | <0.02    |          | 3.2                            |                                | 3.2                            | 3.2                            |                                      |

HEAVY CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 32   | 1.80                        | 0.300    | 0.21          | 0.96      | 12                             | 946               | 25   | 4 311               | 703.9                      | 1979         | 85 12 - GPP                    |
| 16   | 0.60                        | 0.190    | 0.44          | 0.96      | 14                             | 959               | 28   | 4 264               | 633.5                      | 1984         | 84 11                          |
| 352  | 8.84                        | 0.170    | 0.36          | 0.96      | 17                             | 959               | 25   | 4 155               | 646.6                      | 1983         | 85 12                          |
| 16   | 3.00                        | 0.290    | 0.18          | 0.98      | 6                              | 990               | 30   | 2 550               | 476.5                      | 1981         | 82 06                          |
| 16   | 4.10                        | 0.300    | 0.24          | 0.98      | 6                              | 990               | 30   | 2 560               | 485.6                      | 1981         | 82 06                          |
| 64   | 2.65                        | 0.240    | 0.40          | 0.89      | 48                             | 915               | 30   | 11 310              | 978.7                      | 1966         | 82 12 - GPP                    |
| 361  | 1.52                        | 0.200    | 0.38          | 0.89      | 56                             | 915               | 27   | 10 650              | 983.9                      | 1968         | 70 02 - SUSP 70 12             |
| 16   | 3.10                        | 0.140    | 0.35          | 0.90      | 46                             |                   | 23   | 11 470              | 1 014.1                    | 1977         | 79 12                          |
| 65   | 1.83                        | 0.180    | 0.38          | 0.85      | 62                             | 855               | 24   | 10 870              | 1 015.3                    | 1977         | 78 09                          |
| 16   | 2.50                        | 0.210    | 0.33          | 0.90      | 35                             | 931               | 60   | 9 850               | 1 041.5                    | 1981         | 83 02 - SUSP 84 12             |
| 65   | 4.57                        | 0.220    | 0.40          | 0.85      | 53                             | 855               | 38   | 11 510              | 1 040.9                    | 1968         | 69 06 - ABAND 69 09            |
| 32   | 3.00                        | 0.220    | 0.35          | 0.89      | 15                             |                   | 24   | 12 130              | 1 093.9                    | 1978         | 85 12                          |
| 64   | 3.00                        | 0.160    | 0.35          | 0.89      | 53                             | 855               | 34   | 11 180              | 999.8                      | 1978         | 79 12                          |
| 65   | 3.96                        | 0.150    | 0.40          | 0.82      | 82                             | 855               | 38   | 11 190              | 1 032.7                    | 1976         | 84 12 - SUSP 82 12             |
| 384  | 1.46                        | 0.250    | 0.25          | 0.95      | 24                             | 959               | 29   | 7 330               | 720.5                      | 1977         | 83 12                          |
| 32   | 2.70                        | 0.170    | 0.47          | 0.95      | 22                             | 950               | 25   | 7 081               | 759.0                      | 1979         | 03 12 - GPP                    |
| 32   | 1.40                        | 0.230    | 0.40          | 0.95      | 20                             | 955               | 29   | 5 000               | 732.2                      | 1984         | 85 05                          |
| 16   | 3.00                        | 0.300    | 0.50          | 0.95      | 21                             | 929               | 27   | 4 200               | 812.0                      | 1984         | 85 08 - SUSP 85 06             |
| 16   | 3.00                        | 0.320    | 0.40          | 0.95      | 20                             | 948               | 30   | 7 416               | 793.9                      | 1969         | 85 12 - GPP                    |
| 16   | 2.00                        | 0.200    | 0.40          | 0.95      | 21                             | 946               | 29   | 4 700               | 826.9                      | 1984         | 85 03                          |
| 16   | 2.30                        | 0.160    | 0.45          | 0.95      | 21                             | 959               | 26   | 4 700               | 812.1                      | 1982         | 85 04 - GPP                    |
| 32   | 2.30                        | 0.140    | 0.54          | 0.95      | 30                             | 973               | 29   | 7 080               | 788.9                      | 1984         | 85 06 - SUSP 84 12             |
| 64   | 5.20                        | 0.180    | 0.35          | 0.85      | 67                             | 881               | 33   | 9 880               | 1 152.9                    | 1978         | 82 12 - SUSP 78 12             |
| 64   | 7.15                        | 0.150    | 0.44          | 0.97      | 10                             | 935               | 30   | 9 038               | 908.7                      | 1969         | 83 05                          |
| 65   | 19.14                       | 0.075    | 0.17          | 0.81      | 66                             | 915               | 69   | 15 400              | 2 056.8                    | 1971         | 75 12                          |
| 32   | 25.50                       | 0.120    | 0.55          | 0.83      | 74                             | 948               | 54   | 18 530              | 2 032.5                    | 1979         | 82 12 - ABAND 82 02            |
| 537  | 10.49                       | 0.113    | 0.36          | 0.89      | 43                             | 934               | 43   | 10 580              | 1 325.9                    | 1954         | 79 12 - GPP                    |
| 16   | 4.00                        | 0.210    | 0.35          | 0.95      | 21                             | 975               | 30   | 8 887               | 936.6                      | 1980         | 81 01 - SUSP 83 12             |
| 16   | 4.20                        | 0.200    | 0.35          | 0.95      | 25                             | 993               | 33   | 8 811               | 967.7                      | 1980         | 81 04 - SUSP 83 02             |
| 65   | 2.13                        | 0.200    | 0.35          | 0.95      | 18                             | 921               | 36   | 10 590              | 912.6                      | 1972         | 73 03 - ABAND 73 04            |
| 239  | 5.83                        | 0.270    | 0.27          | 0.96      | 17                             | 887               | 34   | 10 750              | 921.7                      | 1971         | 83 12 - GPP                    |
| 32   | 2.20                        | 0.150    | 0.52          | 0.96      | 18                             | 886               | 34   | 10 328              | 912.1                      | 1983         | 83 12                          |
| 57   | 7.47                        | 0.260    | 0.35          | 0.94      | 20                             | 904               | 33   | 10 790              | 902.8                      | 1965         | 80 12 - GPP                    |
| 247  | 4.67                        | 0.250    | 0.25          | 0.87      | 21                             | 887               | 33   | 10 830              | 911.0                      | 1966         | 84 12 - GPP                    |
| 865  | 9.92                        | 0.250    | 0.25          | 0.97      | 30                             | 881               | 31   | 10 620              | 907.7                      | 1968         | 85 09 - GPP                    |
| 968  | 2.18                        | 0.250    | 0.29          | 0.96      | 18                             | 887               | 31   | 10 780              | 917.7                      | 1957         | 84 05 - GPP                    |
| 153  |                             |          |               |           | 40                             | 946               | 32   | 10 650              | 908.9                      | 1971         | 83 12 - GPP                    |
| 25   | 2.50                        | 0.230    | 0.30          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 128  | 4.45                        | 0.240    | 0.39          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 461  |                             |          |               |           | 21                             | 887               | 33   | 10 760              | 933.6                      | 1971         | 85 12                          |
| 16   | 2.25                        | 0.250    | 0.25          | 0.96      |                                |                   |      |                     |                            |              |                                |
| 445  | 2.40                        | 0.260    | 0.25          | 0.96      |                                |                   |      |                     |                            |              | - GPP                          |
| 86   | 3.17                        | 0.260    | 0.23          | 0.96      | 21                             | 934               | 32   | 10 620              | 952.2                      | 1971         | 84 09 - GPP                    |
| 64   | 3.90                        | 0.250    | 0.29          | 0.95      | 21                             | 904               | 43   | 10 580              | 909.8                      | 1953         | 79 12 - GPP                    |
| 32   | 6.10                        | 0.270    | 0.40          | 0.95      | 19                             | 887               | 83   | 10 310              | 897.3                      | 1973         | 85 12                          |

TABLE 2-4

| FIELD<br>POOL                       | 1                              | 2 3      |          | 4 5 6                          |                                |                                | 7                              | 8                                    |
|-------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                     | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                     |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                     | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| GRAND FORKS 011-13W4<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE L                   | 404.0                          |          |          | 60.6                           | 9.6                            | 70.2                           | 49.7                           | 20.5                                 |
| TOTAL                               |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                        | 212.0                          | 0.15     |          | 31.8                           |                                | 31.8                           |                                |                                      |
| WATER FLOOD AREA                    | 192.0                          | 0.15     | 0.05     | 28.8                           | 9.6                            | 38.4                           |                                |                                      |
| LOWER MANNVILLE M                   | 362.0                          | 0.10     |          | 36.2                           |                                | 36.2                           | 9.2                            | 27.0                                 |
| LOWER MANNVILLE N                   | 415.0                          | 0.10     |          | 41.5                           |                                | 41.5                           | 12.2                           | 29.3                                 |
| LOWER MANNVILLE O                   | 31.8                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| LOWER MANNVILLE U                   | 213.0                          | 0.10     |          | 21.3                           |                                | 21.3                           | 13.5                           | 7.8                                  |
| LOWER MANNVILLE X                   | 148.0                          | 0.05     |          | 7.4                            |                                | 7.4                            | 1.3                            | 6.1                                  |
| LOWER MANNVILLE Y                   | 80.2                           | 0.10     |          | 8.0                            |                                | 8.0                            | 3.3                            | 4.7                                  |
| LOWER MANNVILLE Z                   | 32.0                           | 0.10     |          | 3.2                            |                                | 3.2                            | 1.4                            | 1.8                                  |
| LOWER MANNVILLE AA                  | 196.0                          | 0.03     |          | 5.9                            |                                | 5.9                            | 1.5                            | 4.4                                  |
| LOWER MANNVILLE BB                  | 1 340.0                        | 0.15     |          | 201.0                          |                                | 201.0                          | 160.2                          | 40.8                                 |
| LOWER MANNVILLE CC                  | 24.6                           | 0.10     |          | 2.5                            |                                | 2.5                            | 0.5                            | 2.0                                  |
| LOWER MANNVILLE DD                  | 72.2                           | 0.10     |          | 7.2                            |                                | 7.2                            | 4.2                            | 3.0                                  |
| LOWER MANNVILLE EE                  | 35.6                           | 0.10     |          | 3.6                            |                                | 3.6                            | 1.0                            | 2.6                                  |
| LOWER MANNVILLE FF                  | 175.0                          | 0.04     |          | 7.3                            |                                | 7.3                            | 7.3                            |                                      |
| LOWER MANNVILLE GG                  | 239.0                          | 0.15     |          | 35.9                           |                                | 35.9                           | 21.1                           | 14.8                                 |
| LOWER MANNVILLE HH                  | 228.0                          | 0.15     |          | 34.2                           |                                | 34.2                           | 14.5                           | 19.7                                 |
| LOWER MANNVILLE II                  | 3 030.0                        |          |          | 606.0                          | 475.0                          | 1 080.0                        | 286.8                          | 793.2                                |
| TOTAL                               |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                        | 1 130.0                        | 0.20     |          | 226.0                          |                                | 226.0                          |                                |                                      |
| WATER FLOOD AREA                    | 1 900.0                        | 0.20     | 0.25     | 380.0                          | 475.0                          | 855.0                          |                                |                                      |
| LOWER MANNVILLE JJ                  | 54.7                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| LOWER MANNVILLE KK                  | 29.9                           | 0.05     |          | 1.5                            |                                | 1.5                            | 0.1                            | 1.4                                  |
| LOWER MANNVILLE LL                  | 222.0                          | 0.15     |          | 33.3                           |                                | 33.3                           | 6.1                            | 27.2                                 |
| LOWER MANNVILLE MM                  | 102.0                          | 0.10     |          | 10.2                           |                                | 10.2                           | 4.9                            | 5.3                                  |
| LOWER MANNVILLE NN                  | 45.1                           | 0.15     |          | 6.8                            |                                | 6.8                            | 0.7                            | 6.1                                  |
| LOWER MANNVILLE OO                  | 108.0                          | 0.10     |          | 10.8                           |                                | 10.8                           | 2.9                            | 7.9                                  |
| LOWER MANNVILLE PP                  | 237.0                          | 0.10     |          | 23.7                           |                                | 23.7                           | 12.4                           | 11.3                                 |
| LOWER MANNVILLE K&V                 | 450.0                          | 0.15     | 0.35     | 675.0                          | 1 570.0                        | 2 250.0                        | 1 458.0                        | 792.0                                |
| WATER FLOOD                         |                                |          |          |                                |                                |                                |                                |                                      |
| SAWTOOTH A                          | 254.0                          | 0.18     |          | 45.7                           |                                | 45.7                           | 34.8                           | 10.9                                 |
| SAWTOOTH B                          | 406.0                          | 0.10     |          | 40.6                           |                                | 40.6                           | 14.5                           | 26.1                                 |
| SAWTOOTH C                          | 138.0                          | 0.10     |          | 13.8                           |                                | 13.8                           | 6.1                            | 7.7                                  |
| SAWTOOTH D                          | 941.0                          | 0.10     |          | 94.1                           |                                | 94.1                           | 48.6                           | 45.5                                 |
| SAWTOOTH E                          | 21.9                           | 0.10     |          | 2.2                            |                                | 2.2                            | 1.7                            | 0.5                                  |
| SAWTOOTH F                          | 163.0                          | 0.10     |          | 16.3                           |                                | 16.3                           | 9.3                            | 7.0                                  |
| SAWTOOTH G                          | 33.6                           | 0.10     |          | 3.4                            |                                | 3.4                            | 1.8                            | 1.6                                  |
| SAWTOOTH H                          | 71.3                           | 0.10     |          | 7.1                            |                                | 7.1                            | 5.4                            | 1.7                                  |
| SAWTOOTH I                          | 691.0                          | 0.10     |          | 69.1                           |                                | 69.1                           | 30.8                           | 38.3                                 |
| SAWTOOTH J                          | 145.0                          | 0.12     |          | 17.4                           |                                | 17.4                           | 14.5                           | 2.9                                  |
| SAWTOOTH K                          | 32.4                           | 0.10     |          | 3.2                            |                                | 3.2                            | 0.3                            | 2.9                                  |
| SAWTOOTH L                          | 805.0                          | 0.20     |          | 161.0                          |                                | 161.0                          | 83.0                           | 78.0                                 |
| SAWTOOTH O                          | 841.0                          | 0.10     |          | 84.1                           |                                | 84.1                           | 50.6                           | 23.5                                 |
| SAWTOOTH S                          | 1 110.0                        | 0.25     |          | 278.0                          |                                | 278.0                          | 240.6                          | 37.4                                 |
| SAWTOOTH T                          | 1 090.0                        | 0.25     |          | 272.0                          |                                | 272.0                          | 269.0                          | 3.0                                  |
| GREENCOURT 059-09W5                 |                                |          |          |                                |                                |                                |                                |                                      |
| PEKISKD A                           | 2 510.0                        | 0.04     |          | 100.0                          |                                | 100.0                          |                                | 100.0                                |
| PEKISKD C                           | 136.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| GREENCOURT EAST<br>059-06W5         |                                |          |          |                                |                                |                                |                                |                                      |
| JURASSIC A                          | 88.0                           | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| BANFF A                             | 180.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| BANFF B                             | 135.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| GUNN 055-03W5                       |                                |          |          |                                |                                |                                |                                |                                      |
| BANFF A                             | 150.0                          | 0.10     |          | 15.0                           |                                | 15.0                           | 1.2                            | 13.8                                 |
| HAIRY HILL 055-14W4                 |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING K                            | 36.9                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| COLONY T                            | 60.8                           | 0.05     |          | 3.0                            |                                | 3.0                            | 0.1                            | 2.9                                  |
| HARD 103-06W6                       |                                |          |          |                                |                                |                                |                                |                                      |
| PEKISKD B                           | 981.0                          | 0.05     |          | 49.1                           |                                | 49.1                           |                                | 49.1                                 |
| HAROLD LAKE 063-04W4                |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY                              | 129.0                          | <0.02    |          | 1.5                            |                                | 1.5                            | 1.5                            |                                      |



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                            |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|-------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARK |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                               |
| 100  |                             |          |               |           | 21                             | 892               | 33   | 10 580              | 940.9                      | 1973         | 84 12                         |
| 58   | 2.00                        | 0.260    | 0.26          | 0.95      |                                |                   |      |                     |                            |              |                               |
| 42   | 2.50                        | 0.260    | 0.26          | 0.95      |                                |                   |      |                     |                            |              | - GPP                         |
| 134  | 2.06                        | 0.200    | 0.31          | 0.95      | 21                             | 921               | 33   | 10 766              | 902.5                      | 1974         | 85 04                         |
| 64   | 3.81                        | 0.230    | 0.22          | 0.95      | 23                             | 899               | 34   | 10 780              | 902.8                      | 1971         | 85 09                         |
| 16   | 1.22                        | 0.260    | 0.35          | 0.95      | 19                             | 887               | 34   | 10 410              | 943.1                      | 1974         | 83 12 - SUSP 76 05            |
| 16   | 9.10                        | 0.250    | 0.37          | 0.94      | 25                             | 910               | 32   | 10 560              | 871.8                      | 1980         | 83 12                         |
| 16   | 5.20                        | 0.240    | 0.23          | 0.96      | 16                             | 933               | 33   | 10 284              | 901.0                      | 1981         | 82 12                         |
| 32   | 1.23                        | 0.300    | 0.30          | 0.97      | 9                              | 952               | 34   | 10 518              | 929.7                      | 1972         | 77 12 - GPP                   |
| 16   | 1.29                        | 0.180    | 0.12          | 0.98      | 10                             | 946               | 21   | 10 449              | 948.7                      | 1978         | 80 07 - SUSP 84 03            |
| 64   | 2.08                        | 0.250    | 0.33          | 0.88      | 50                             | 921               | 34   | 10 834              | 963.3                      | 1979         | 82 09                         |
| 160  | 5.72                        | 0.240    | 0.29          | 0.86      | 64                             | 941               | 21   | 14 500              | 955.3                      | 1954         | 85 07 - GPP                   |
| 32   | 1.50                        | 0.120    | 0.55          | 0.95      | 18                             | 888               | 34   | 8 518               | 912.4                      | 1981         | 82 12                         |
| 16   | 4.00                        | 0.240    | 0.50          | 0.94      | 22                             | 910               | 32   | 10 415              | 866.0                      | 1982         | 82 12 - GPP                   |
| 32   | 1.20                        | 0.150    | 0.35          | 0.95      | 16                             | 886               | 31   | 10 507              | 867.8                      | 1982         | 83 02                         |
| 32   | 3.40                        | 0.220    | 0.23          | 0.95      | 18                             | 892               | 42   | 10 545              | 867.2                      | 1965         | 83 05 - GPP                   |
| 42   | 4.00                        | 0.200    | 0.25          | 0.95      | 18                             | 892               | 42   | 9 740               | 873.7                      | 1975         | 85 12 - GPP                   |
| 32   | 6.30                        | 0.220    | 0.46          | 0.95      | 18                             | 892               | 42   | 10 583              | 895.4                      | 1979         | 85 12 - GPP                   |
| 560  |                             |          |               |           | 31                             | 885               | 32   | 10 665              | 926.9                      | 1983         | 85 11                         |
| 264  | 2.68                        | 0.256    | 0.33          | 0.93      |                                |                   |      |                     |                            |              | - GPP                         |
| 296  | 4.04                        | 0.255    | 0.33          | 0.93      |                                |                   |      |                     |                            |              | - SUSP 83 10                  |
| 32   | 3.00                        | 0.200    | 0.70          | 0.95      | 16                             | 886               | 31   | 10 257              | 858.0                      | 1983         | 83 11                         |
| 16   | 1.80                        | 0.180    | 0.40          | 0.96      | 22                             | 895               | 32   | 10 412              | 910.4                      | 1984         | 84 10                         |
| 16   | 7.70                        | 0.250    | 0.25          | 0.96      | 22                             | 895               | 32   | 10 424              | 911.9                      | 1984         | 84 10                         |
| 16   | 4.30                        | 0.260    | 0.40          | 0.95      | 20                             | 895               | 32   | 300                 | 865.9                      | 1984         | 84 11                         |
| 32   | 1.70                        | 0.150    | 0.43          | 0.97      | 11                             | 904               | 28   | 2 400               | 869.4                      | 1984         | 85 03                         |
| 16   | 4.80                        | 0.230    | 0.36          | 0.95      | 20                             | 895               | 32   | 3 000               | 868.1                      | 1984         | 85 03                         |
| 32   | 4.00                        | 0.260    | 0.25          | 0.95      | 10                             | 887               | 37   | 10 190              | 894.0                      | 1975         | 85 09                         |
| 384  | 5.88                        | 0.250    | 0.16          | 0.95      |                                | 892               | 32   | 11 301              | 908.9                      | 1973         | 85 09 - GPP                   |
| 64   | 3.80                        | 0.180    | 0.39          | 0.95      | 18                             | 892               | 42   | 10 720              | 884.2                      | 1965         | 85 12 - GPP                   |
| 128  | 3.27                        | 0.170    | 0.40          | 0.95      | 18                             | 909               | 42   | 10 760              | 934.7                      | 1978         | 85 12                         |
| 32   | 3.50                        | 0.200    | 0.35          | 0.95      | 20                             | 922               | 30   | 10 370              | 897.5                      | 1980         | 85 12 - GPP                   |
| 128  | 6.60                        | 0.230    | 0.49          | 0.95      | 20                             | 912               | 31   | 10 531              | 938.3                      | 1980         | 85 07                         |
| 16   | 1.00                        | 0.240    | 0.40          | 0.95      | 17                             | 935               | 39   | 10 819              | 951.0                      | 1981         | 82 08                         |
| 64   | 2.80                        | 0.120    | 0.20          | 0.95      | 18                             | 903               | 42   | 10 846              | 898.9                      | 1979         | 83 12                         |
| 32   | 0.90                        | 0.150    | 0.18          | 0.95      | 18                             | 931               | 42   | 10 561              | 933.2                      | 1980         | 83 12                         |
| 64   | 1.00                        | 0.170    | 0.31          | 0.95      | 20                             | 4                 | 37   | 10 563              | 953.5                      | 1978         | 79 05                         |
| 128  | 3.20                        | 0.240    | 0.26          | 0.95      | 18                             | 892               | 42   | 10 124              | 900.6                      | 1958         | 85 12 - GPP                   |
| 64   | 2.07                        | 0.240    | 0.52          | 0.95      | 19                             | 891               | 32   | 10 506              | 894.7                      | 1983         | 85 06                         |
| 16   | 2.81                        | 0.217    | 0.65          | 0.95      | 20                             | 90                | 33   | 10 268              | 932.9                      | 1983         | 84 10 - SUSP 85 02            |
| 96   | 6.19                        | 0.230    | 0.38          | 0.95      | 20                             | 891               | 32   | 10 500              | 865.2                      | 1979         | 84 12 - GPP                   |
| 200  | 2.93                        | 0.260    | 0.42          | 0.95      | 16                             | 921               | 31   | 10 450              | 936.3                      | 1975         | 84 12 - GPP                   |
| 176  | 4.29                        | 0.230    | 0.32          | 0.94      | 21                             | 886               | 33   | 4 268               | 813.8                      | 1965         | 85 10 - GPP                   |
| 112  | 5.99                        | 0.240    | 0.28          | 0.94      | 21                             | 886               | 33   | 4 268               | 880.5                      | 1965         | 85 10 - GPP                   |
| 540  | 5.30                        | 0.130    | 0.25          | 0.90      | 49                             | 915               | 58   | 11 090              | 1 456.3                    | 1961         | 82 12 - GPP                   |
| 65   | 3.35                        | 0.090    | 0.20          | 0.87      | 48                             | 898               | 60   | 11 200              | 1 474.2                    | 1968         | 69 01 - SUSP 70 05            |
| 32   | 3.00                        | 0.180    | 0.40          | 0.85      | 46                             | 915               | 70   | 10 799              | 1 247.8                    | 1980         | 85 12 - SUSP 83 05            |
| 32   | 9.30                        | 0.100    | 0.32          | 0.89      |                                | 922               | 50   | 10 171              | 1 255.7                    | 1981         | 84 12 - SUSP 84 04            |
| 32   | 10.78                       | 0.074    | 0.40          | 0.88      | 43                             | 934               | 51   | 9 353               | 1 245.8                    | 1980         | 84 12 - SUSP 84 04            |
| 64   | 3.50                        | 0.100    | 0.25          | 0.89      | 46                             | 933               | 43   | 10 240              | 1 350.0                    | 1978         | 80 02 - GPP                   |
| 32   | 1.60                        | 0.160    | 0.50          | 0.90      | 41                             | 904               | 22   | 4 429               | 486.0                      | 1976         | 85 07 - SUSP 83 11            |
| 16   | 2.00                        | 0.300    | 0.36          | 0.99      | 10                             | 952               | 20   | 3 648               | 541.0                      | 1982         | 83 02 - SUSP 82 12            |
| 64   | 13.10                       | 0.160    | 0.23          | 0.95      | 50                             | 915               | 27   | 2 946               | 630.7                      | 1980         | 83 05 - SUSP 84 11            |
| 65   | 1.52                        | 0.250    | 0.45          | 0.95      | 10                             | 952               | 13   | 2 610               | 335.3                      | 1955         | 65 12 - ABAND 68 07           |

TABLE 2-4

| FIELD<br>POOL                     | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                   | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                   |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                   | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>HAYS 013-14W4</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                 | 302.0                          | 0.10     |          | 30.2                           |                                | 30.2                           | 0.7                            | 29.5                                 |
| LOWER MANNVILLE A                 | 3 600.0                        | 0.16     | 0.29     | 576.0                          | 1 040.0                        | 1 620.0                        | 1 387.2                        | 232.8                                |
| WATER FLOOD                       |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE B                 | 1 010.0                        | 0.10     |          | 101.0                          |                                | 101.0                          | 70.4                           | 30.6                                 |
| LOWER MANNVILLE C                 | 600.0                          | 0.40     |          | 240.0                          |                                | 240.0                          | 141.6                          | 98.4                                 |
| LOWER MANNVILLE D                 | 530.0                          | 0.20     |          | 106.0                          |                                | 106.0                          | 70.1                           | 35.9                                 |
| LOWER MANNVILLE G                 | 108.0                          | 0.12     |          | 13.0                           |                                | 13.0                           | 10.2                           | 2.8                                  |
| LOWER MANNVILLE H                 | 85.5                           | 0.05     |          | 4.3                            |                                | 4.3                            |                                | 4.3                                  |
| LOWER MANNVILLE I                 | 49.6                           | 0.10     |          | 5.0                            |                                | 5.0                            | 2.3                            | 2.7                                  |
| LOWER MANNVILLE J                 | 105.0                          | 0.10     |          | 10.5                           |                                | 10.5                           | 0.2                            | 10.3                                 |
| LOWER MANNVILLE K                 | 194.0                          | 0.10     |          | 19.4                           |                                | 19.4                           | 6.1                            | 13.3                                 |
| LOWER MANNVILLE M                 | 249.0                          | 0.10     |          | 24.9                           |                                | 24.9                           | 4.2                            | 20.7                                 |
| <b>HAYTER 041-01W4</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                 | 90.1                           | 0.05     |          | 4.5                            |                                | 4.5                            | 2.7                            | 1.8                                  |
| COLONY A                          | 111.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| COLONY B                          | 282.0                          | 0.05     |          | 14.1                           |                                | 14.1                           | 5.0                            | 9.1                                  |
| SPARKY A TOTAL                    | 3 560.0                        |          |          | 250.0                          | 92.5                           | 343.0                          | 238.8                          | 104.2                                |
| PRIMARY AREA                      | 484.0                          | 0.07     |          | 34.0                           |                                | 34.0                           |                                |                                      |
| WATER FLOOD AREA                  | 3 080.0                        | 0.07     | 0.03     | 216.0                          | 92.5                           | 309.0                          |                                |                                      |
| SPARKY B                          | 262.0                          | 0.05     |          | 13.2                           |                                | 13.2                           | 6.1                            | 7.1                                  |
| SPARKY C                          | 162.0                          | 0.05     |          | 8.1                            |                                | 8.1                            | 1.0                            | 7.1                                  |
| SPARKY G                          | 63.0                           | 0.05     |          | 3.2                            |                                | 3.2                            | 2.0                            | 1.2                                  |
| SPARKY H                          | 36.2                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| SPARKY I                          | 89.1                           | 0.05     |          | 4.4                            |                                | 4.4                            | 1.2                            | 3.2                                  |
| SPARKY J                          | 51.4                           | 0.10     |          | 5.1                            |                                | 5.1                            | 1.7                            | 3.4                                  |
| SPARKY K                          | 34.6                           | 0.05     |          | 1.7                            |                                | 1.7                            | 1.1                            | 0.6                                  |
| SPARKY L                          | 378.0                          | 0.05     |          | 18.9                           |                                | 18.9                           | 4.8                            | 14.1                                 |
| SPARKY M                          | 99.1                           | 0.05     |          | 5.0                            |                                | 5.0                            | 2.6                            | 2.4                                  |
| SPARKY N                          | 115.0                          | 0.05     |          | 5.7                            |                                | 5.7                            | 0.2                            | 5.5                                  |
| SPARKY O                          | 62.5                           | 0.05     |          | 3.1                            |                                | 3.1                            | 0.2                            | 2.9                                  |
| SPARKY P                          | 38.4                           | 0.05     |          | 1.9                            |                                | 1.9                            | 0.4                            | 1.5                                  |
| SPARKY R                          | 29.4                           | 0.05     |          | 1.5                            |                                | 1.5                            | 0.3                            | 1.2                                  |
| SPARKY D&E                        | 705.0                          | 0.10     |          | 70.5                           |                                | 70.5                           | 50.8                           | 19.7                                 |
| LLOYDMINSTER A                    | 71.0                           | 0.05     |          | 3.6                            |                                | 3.6                            |                                | 3.6                                  |
| LLOYDMINSTER B                    | 60.2                           | 0.05     |          | 3.0                            |                                | 3.0                            | 1.8                            | 1.2                                  |
| CUMMINGS A                        | 57.0                           | 0.05     |          | 2.9                            |                                | 2.9                            | 1.0                            | 1.9                                  |
| DINA A TOTAL                      | 9 400.0                        |          |          | 376.0                          | 420.0                          | 796.0                          | 387.9                          | 408.1                                |
| PRIMARY AREA                      | 2 400.0                        | 0.04     |          | 96.0                           |                                | 96.0                           |                                |                                      |
| WATER FLOOD AREA                  | 7 000.0                        | 0.04     | 0.06     | 280.0                          | 420.0                          | 700.0                          |                                |                                      |
| DINA B                            | 32 300.0                       | 0.02     |          | 646.0                          |                                | 646.0                          | 269.5                          | 376.5                                |
| DINA C                            | 945.0                          | 0.02     |          | 18.9                           |                                | 18.9                           | 8.3                            | 10.6                                 |
| DINA D                            | 356.0                          | 0.03     |          | 10.7                           |                                | 10.7                           | 7.4                            | 3.3                                  |
| DINA E                            | 67.6                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| DINA F                            | 456.0                          | 0.03     |          | 13.7                           |                                | 13.7                           | 3.8                            | 9.9                                  |
| DINA H                            | 252.0                          | 0.05     |          | 12.6                           |                                | 12.6                           | 2.3                            | 10.3                                 |
| DINA I                            | 3 500.0                        | 0.05     |          | 175.0                          |                                | 175.0                          | 10.0                           | 165.0                                |
| DINA J                            | 258.0                          | 0.02     |          | 5.2                            |                                | 5.2                            | 0.3                            | 4.9                                  |
| DINA K                            | 1 260.0                        | 0.03     |          | 37.8                           |                                | 37.8                           | 1.4                            | 36.4                                 |
| <b>HECTOR 016-17W4</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B                 | 158.0                          | 0.02     |          | 3.2                            |                                | 3.2                            | 1.7                            | 1.5                                  |
| <b>HORSEFLY LAKE<br/>008-16W4</b> |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE TOTAL                   | 6 380.0                        |          |          | 516.0                          | 680.0                          | 1 200.0                        | 946.0                          | 254.0                                |
| PRIMARY AREA                      | 721.0                          | 0.05     |          | 36.1                           |                                | 36.1                           |                                |                                      |
| WATER FLOOD AREA                  | 5 660.0                        | <0.08    | 0.13     | 480.0                          | 680.0                          | 1 160.0                        |                                |                                      |
| <b>ISLAY 050-04W4</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| CUMMINGS A                        | 113.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| <b>JENNER 020-09W4</b>            |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                 | 260.0                          | 0.11     |          | 28.6                           |                                | 28.6                           | 24.7                           | 3.9                                  |
| UPPER MANNVILLE E                 | 3 810.0                        | 0.10     | 0.15     | 381.0                          | 572.0                          | 953.0                          | 726.8                          | 226.2                                |
| WATER FLOOD                       |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE F                 | 4 260.0                        | 0.04     |          | 170.0                          |                                | 170.0                          | 141.4                          | 28.6                                 |
| UPPER MANNVILLE M                 | 242.0                          | <0.01    |          | 0.2                            |                                | 0.2                            |                                | 0.2                                  |
| UPPER MANNVILLE O                 | 2 480.0                        | 0.05     |          | 124.0                          |                                | 124.0                          | 75.6                           | 48.4                                 |
| UPPER MANNVILLE V                 | 267.0                          | 0.05     |          | 13.4                           |                                | 13.4                           | 1.6                            | 11.8                                 |
| UPPER MANNVILLE W                 | 80.9                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| UPPER MANNVILLE X                 | 87.4                           | 0.10     |          | 8.7                            |                                | 8.7                            | 0.3                            | 8.4                                  |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GUR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 2.50                        | 0.300    | 0.30          | 0.90      | 52                             | 890               | 31   | 11 851              | 951.3                      | 1983         | 84 01                          |
| 386   | 4.94                        | 0.280    | 0.25          | 0.90      | 38                             | 865               | 31   | 10 363              | 950.4                      | 1964         | 83 12                          |
| 302   | 2.24                        | 0.250    | 0.32          | 0.88      | 21                             | 904               | 31   | 10 950              | 974.3                      | 1967         | 83 12                          |
| 154   | 2.86                        | 0.270    | 0.44          | 0.90      | 21                             | 898               | 38   | 10 940              | 956.2                      | 1967         | 81 01 - GPP                    |
| 75    | 3.68                        | 0.280    | 0.22          | 0.88      | 60                             | 887               | 32   | 10 920              | 953.1                      | 1969         | 85 08                          |
| 64    | 2.14                        | 0.160    | 0.44          | 0.88      | 21                             | 887               | 30   | 10 940              | 963.2                      | 1978         | 80 12                          |
| 16    | 3.50                        | 0.240    | 0.33          | 0.95      | 21                             | 959               | 32   | 11 140              | 997.5                      | 1978         | 79 06                          |
| 32    | 1.00                        | 0.220    | 0.20          | 0.88      | 37                             | 865               | 28   | 12 218              | 946.0                      | 1980         | 83 12                          |
| 32    | 2.50                        | 0.240    | 0.38          | 0.88      | 50                             | 883               | 32   | 10 573              | 977.3                      | 1982         | 85 08                          |
| 64    | 1.89                        | 0.260    | 0.33          | 0.92      | 37                             | 893               | 58   | 10 686              | 953.3                      | 1983         | 84 09 - GPP                    |
| 64    | 2.40                        | 0.230    | 0.25          | 0.94      | 37                             | 873               | 31   | 11 754              | 958.3                      | 1984         | 85 04                          |
| 32    | 2.20                        | 0.220    | 0.40          | 0.97      | 12                             | 930               | 27   | 5 191               | 809.3                      | 1980         | 83 12                          |
| 16    | 5.20                        | 0.250    | 0.45          | 0.97      | 14                             | 951               | 26   | 4 438               | 618.0                      | 1980         | 80 10 - SUSP 80 11             |
| 64    | 2.81                        | 0.260    | 0.38          | 0.97      | 11                             | 972               | 28   | 4 832               | 682.8                      | 1983         | 84 07                          |
| 1 224 |                             |          |               |           | 13                             | 910               | 29   | 5 690               | 795.2                      | 1968         | 84 10                          |
| 144   | 2.13                        | 0.280    | 0.42          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 1 080 | 1.37                        | 0.290    | 0.26          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 65    | 2.13                        | 0.280    | 0.30          | 0.97      | 15                             | 915               | 27   | 5 790               | 739.4                      | 1971         | 73 12 - SUSP 83 12             |
| 64    | 1.54                        | 0.260    | 0.35          | 0.97      | 12                             | 921               | 37   | 5 760               | 776.0                      | 1972         | 73 01                          |
| 16    | 2.50                        | 0.280    | 0.42          | 0.97      | 12                             | 919               | 32   | 5 162               | 687.5                      | 1979         | 80 06                          |
| 16    | 1.60                        | 0.270    | 0.46          | 0.97      | 19                             | 920               | 23   | 4 800               | 717.6                      | 1979         | 83 12 - SUSP 83 12             |
| 32    | 2.14                        | 0.240    | 0.44          | 0.97      | 12                             | 925               | 32   | 5 375               | 711.7                      | 1980         | 81 05                          |
| 16    | 1.30                        | 0.300    | 0.15          | 0.97      |                                | 921               | 20   | 4 800               | 744.7                      | 1981         | 82 03                          |
| 16    | 2.00                        | 0.250    | 0.55          | 0.96      |                                | 934               | 26   | 5 023               | 672.3                      | 1980         | 82 03                          |
| 80    | 2.37                        | 0.290    | 0.29          | 0.97      | 11                             | 911               | 31   | 5 790               | 739.5                      | 1981         | 82 04                          |
| 16    | 3.50                        | 0.240    | 0.24          | 0.97      | 11                             | 939               | 28   | 5 058               | 734.3                      | 1979         | 80 01                          |
| 32    | 2.40                        | 0.280    | 0.45          | 0.97      | 12                             | 920               | 27   | 5 495               | 737.0                      | 1972         | 83 09                          |
| 16    | 2.30                        | 0.250    | 0.30          | 0.97      | 12                             | 920               | 26   | 5 570               | 736.7                      | 1983         | 83 11 - SUSP 85 08             |
| 16    | 1.50                        | 0.300    | 0.45          | 0.97      | 11                             | 925               | 28   | 5 273               | 718.8                      | 1983         | 84 05                          |
| 16    | 0.15                        | 0.230    | 0.45          | 0.97      | 11                             | 920               | 26   | 5 876               | 771.1                      | 1983         | 84 10                          |
| 176   | 2.52                        | 0.270    | 0.37          | 0.97      | 16                             | 930               | 25   | 5 103               | 744.6                      | 1972         | 83 09                          |
| 16    | 2.20                        | 0.300    | 0.30          | 0.96      | 17                             | 904               | 29   | 3 800               | 754.4                      | 1981         | 82 04 - SUSP 83 04             |
| 16    | 2.00                        | 0.280    | 0.30          | 0.96      | 15                             | 940               | 34   | 4 300               | 781.5                      | 1981         | 82 04                          |
| 16    | 2.50                        | 0.210    | 0.30          | 0.97      | 10                             | 911               | 33   | 4 713               | 758.7                      | 1981         | 82 04                          |
| 642   |                             |          |               |           | 13                             | 921               | 24   | 5 190               | 788.6                      | 1969         | 84 06                          |
| 253   | 4.02                        | 0.300    | 0.19          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 389   | 7.83                        | 0.300    | 0.21          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 1 256 | 10.63                       | 0.290    | 0.14          | 0.97      | 12                             | 965               | 29   | 5 500               | 778.0                      | 1969         | 84 12 - GPP                    |
| 64    | 8.17                        | 0.270    | 0.21          | 0.97      | 13                             | 958               | 26   | 5 070               | 780.3                      | 1979         | 82 03 - GPP                    |
| 16    | 9.00                        | 0.300    | 0.15          | 0.97      | 9                              | 938               | 34   | 5 140               | 700.5                      | 1979         | 80 08                          |
| 16    | 2.60                        | 0.250    | 0.33          | 0.97      | 14                             | 938               | 27   | 5 198               | 712.8                      | 1980         | 80 10 - SUSP 80 11             |
| 32    | 7.00                        | 0.280    | 0.25          | 0.97      | 12                             | 970               | 29   | 5 095               | 823.6                      | 1980         | 81 12 - GPP                    |
| 16    | 8.40                        | 0.280    | 0.31          | 0.97      | 11                             | 970               | 30   | 5 595               | 771.6                      | 1979         | 80 07 - GPP                    |
| 113   | 11.00                       | 0.330    | 0.12          | 0.97      | 11                             | 960               | 27   | 2 900               | 764.1                      | 1984         | 85 03                          |
| 16    | 6.50                        | 0.320    | 0.20          | 0.97      | 11                             | 970               | 31   | 5 118               | 777.6                      | 1984         | 84 02                          |
| 32    | 14.90                       | 0.320    | 0.15          | 0.97      | 20                             | 970               | 28   | 5 500               | 782.9                      | 1984         | 85 12                          |
| 32    | 8.00                        | 0.140    | 0.50          | 0.88      | 52                             | 913               | 33   | 12 108              | 1 082.2                    | 1982         | 85 12 - GPP                    |
| 1 200 |                             |          |               |           | 16                             | 887               | 33   | 10 200              | 961.6                      | 1963         | 84 04                          |
| 176   | 4.31                        | 0.175    | 0.44          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 1 024 | 5.50                        | 0.185    | 0.44          | 0.97      |                                |                   |      |                     |                            |              |                                |
| 16    | 3.50                        | 0.300    | 0.30          | 0.96      |                                | 978               | 26   | 6 000               | 701.3                      | 1980         | 82 03 - ABAND 83 05            |
| 186   | 1.22                        | 0.220    | 0.42          | 0.90      | 37                             | 927               | 32   | 10 140              | 967.7                      | 1965         | 83 12 - GPP                    |
| 918   | 2.07                        | 0.297    | 0.25          | 0.90      | 37                             | 927               | 33   | 10 690              | 989.1                      | 1964         | 76 01 - GPP                    |
| 377   | 6.83                        | 0.260    | 0.30          | 0.91      | 29                             | 952               | 33   | 10 410              | 935.1                      | 1965         | 80 12 - GPP                    |
| 32    | 5.49                        | 0.230    | 0.35          | 0.91      | 35                             | 946               | 31   | 10 270              | 941.2                      | 1971         | 74 12 - SUSP 71 10             |
| 144   | 9.72                        | 0.270    | 0.28          | 0.91      | 37                             | 952               | 33   | 10 510              | 954.3                      | 1972         | 84 12 - GPP                    |
| 16    | 9.90                        | 0.240    | 0.26          | 0.95      | 37                             | 960               | 35   | 10 042              | 937.7                      | 1973         | 85 01 - GPP                    |
| 16    | 3.35                        | 0.224    | 0.26          | 0.91      | 38                             | 948               | 30   | 4 900               | 948.1                      | 1983         | 83 10 - SUSP 83 09             |
| 16    | 3.73                        | 0.230    | 0.33          | 0.95      | 38                             | 941               | 24   | 10 200              | 912.7                      | 1984         | 84 11                          |

TABLE 2-4

| FIELD<br>POOL                          | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>JENNER 020-09W4<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE Y                      | 16.1                           | 0.10     |          | 1.6                            |                                | 1.6                            | 0.6                            | 1.0                                  |
| LOWER MANNVILLE A                      | 259.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| LOWER MANNVILLE B                      | 188.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| LOWER MANNVILLE C                      | 60.3                           | 0.05     |          | 3.0                            |                                | 3.0                            | 1.2                            | 1.8                                  |
| PEKISKD A                              | 95.3                           | <0.07    |          | 6.1                            |                                | 6.1                            | 6.1                            |                                      |
| PEKISKD B                              | 466.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| PEKISKD C                              | 106.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| PEKISKD D                              | 501.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| PEKISKD E                              | 50.7                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| <b>JOHNSON 016-14W4</b>                |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                          | 488.0                          | 0.10     |          | 48.8                           |                                | 48.8                           | 15.4                           | 33.4                                 |
| GLAUCONITIC B                          | 320.0                          | 0.10     |          | 132.0                          |                                | 132.0                          | 37.8                           | 94.2                                 |
| GLAUCONITIC C                          | 574.0                          | 0.10     |          | 57.4                           |                                | 57.4                           | 19.3                           | 38.1                                 |
| GLAUCONITIC D                          | 28.8                           | 0.10     |          | 2.9                            |                                | 2.9                            | 0.1                            | 2.8                                  |
| GLAUCONITIC E                          | 148.0                          | 0.10     |          | 14.8                           |                                | 14.8                           | 4.5                            | 10.3                                 |
| <b>JUMPBUSH 020-19W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B                      | 1 000.0                        | 0.10     |          | 100.0                          |                                | 100.0                          | 45.1                           | 54.9                                 |
| UPPER MANNVILLE H                      | 747.0                          | 0.10     |          | 74.7                           |                                | 74.7                           | 19.6                           | 55.1                                 |
| LOWER MANNVILLE A                      | 66.0                           | 0.03     |          | 2.0                            |                                | 2.0                            | 0.9                            | 1.1                                  |
| <b>KEHO 011-22W4</b>                   |                                |          |          |                                |                                |                                |                                |                                      |
| BANFF A                                | 46.8                           | <0.02    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| <b>KILLAM 043-10W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY F                               | 140.0                          | 0.05     |          | 7.0                            |                                | 7.0                            | 3.4                            | 3.6                                  |
| LOWER MANNVILLE A                      | 58.1                           | <0.02    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| ELLERSLIE CC                           | 229.0                          | 0.10     |          | 22.9                           |                                | 22.9                           | 1.6                            | 21.3                                 |
| <b>KIRKWALL 027-05W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY A                               | 110.0                          | 0.05     |          | 5.5                            |                                | 5.5                            | 0.1                            | 5.4                                  |
| <b>LATHOM 020-17W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                      | 4 200.0                        | 0.15     | 0.35     | 630.0                          | 1 470.0                        | 2 100.0                        | 1 675.7                        | 424.3                                |
| WATER FLOOD                            |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE C                      | 922.0                          | 0.11     | 0.24     | 101.0                          | 221.0                          | 323.0                          | 231.1                          | 91.9                                 |
| WATER FLOOD                            |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE D                      | 262.0                          | 0.15     |          | 39.3                           |                                | 39.3                           | 25.8                           | 13.5                                 |
| UPPER MANNVILLE E                      | 87.2                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| UPPER MANNVILLE H                      | 188.0                          | 0.10     |          | 18.8                           |                                | 18.8                           |                                | 18.8                                 |
| LOWER MANNVILLE A                      | 266.0                          | 0.10     |          | 26.6                           |                                | 26.6                           | 14.5                           | 12.1                                 |
| LOWER MANNVILLE B                      | 72.1                           | <0.02    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| LOWER MANNVILLE C                      | 508.0                          | 0.05     |          | 25.4                           |                                | 25.4                           | 0.8                            | 24.6                                 |
| <b>LEAMAN 057-09W5</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| PEKISKD A                              | 98.0                           | 0.10     |          | 9.8                            |                                | 9.8                            | 5.6                            | 4.2                                  |
| PEKISKD B                              | 33.2                           | 0.05     |          | 1.7                            |                                | 1.7                            | 0.1                            | 1.6                                  |
| PEKISKD C                              | 31.3                           | 0.05     |          | 1.6                            |                                | 1.6                            | 0.1                            | 1.5                                  |
| <b>LECKIE 019-17W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B                      | 429.0                          | 0.05     |          | 21.5                           |                                | 21.5                           | 17.4                           | 4.1                                  |
| LOWER MANNVILLE A                      | 195.0                          | <0.01    |          | 1.2                            |                                | 1.2                            | 1.2                            |                                      |
| <b>LITTLE BOW 015-19W4</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| BI G, UPPER MANN BB &                  | 494.0                          | 0.10     |          | 49.4                           |                                | 49.4                           | 5.5                            | 43.9                                 |
| LOWER MANNVILLE T                      |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE D                      | 1 800.0                        |          |          | 72.0                           | 165.0                          | 237.0                          | 86.5                           | 150.5                                |
| TOTAL                                  |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                           | 300.0                          | 0.04     |          | 12.0                           |                                | 12.0                           |                                |                                      |
| WATER FLOOD AREA                       | 1 500.0                        | 0.04     | 0.11     | 60.0                           | 165.0                          | 225.0                          |                                |                                      |
| UPPER MANNVILLE F                      | 192.0                          | 0.10     |          | 19.2                           |                                | 19.2                           | 0.9                            | 18.3                                 |
| UPPER MANNVILLE G                      | 1 850.0                        | 0.10     |          | 185.0                          |                                | 185.0                          | 140.2                          | 44.8                                 |
| UPPER MANNVILLE H                      | 74.2                           | 0.10     |          | 7.4                            |                                | 7.4                            | 0.4                            | 7.0                                  |
| UPPER MANNVILLE I                      | 1 700.0                        | 0.10     | 0.10     | 170.0                          | 170.0                          | 340.0                          | 95.1                           | 244.9                                |
| WATER FLOOD                            |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE J                      | 210.0                          | 0.05     |          | 10.5                           |                                | 10.5                           | 5.5                            | 5.0                                  |
| UPPER MANNVILLE L                      | 1 040.0                        |          |          | 52.0                           | 100.0                          | 152.0                          | 54.5                           | 97.5                                 |
| TOTAL                                  |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                           | 40.4                           | 0.05     |          | 2.0                            |                                | 2.0                            |                                |                                      |
| WATER FLOOD AREA                       | 1 000.0                        | 0.05     | 0.10     | 50.0                           | 100.0                          | 150.0                          |                                |                                      |

HEAVY CRUDE OIL POOLS



| 9    | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha   | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 16   | 0.77                        | 0.208    | 0.34          | 0.95      | 20                             | 954               | 28   | 5 000               | 915.2                      | 1984         | 85 01                          |
| 32   | 4.57                        | 0.240    | 0.20          | 0.91      | 29                             | 940               | 32   | 10 790              | 979.0                      | 1965         | 67 05 - SUSP 69 11             |
| 16   | 5.94                        | 0.290    | 0.25          | 0.91      | 29                             | 959               | 32   | 10 000              | 964.4                      | 1954         | 78 09 - SUSP 79 10             |
| 16   | 3.00                        | 0.230    | 0.40          | 0.91      | 42                             | 944               | 32   | 10 569              | 987.5                      | 1981         | 82 05 - GPP                    |
| 64   | 3.29                        | 0.100    | 0.50          | 0.90      | 81                             | 946               | 33   | 10 890              | 1 001.6                    | 1964         | 73 02 - ABAND 72 02            |
| 28   | 23.77                       | 0.112    | 0.30          | 0.90      | 81                             | 946               | 41   | 10 620              | 1 036.6                    | 1966         | 68 02 - ABAND 69 02            |
| 32   | 6.10                        | 0.120    | 0.50          | 0.90      | 81                             | 946               | 34   | 10 760              | 991.8                      | 1966         | 68 10 - SUSP 69 01             |
| 65   | 4.27                        | 0.300    | 0.35          | 0.93      | 29                             | 972               | 32   | 10 780              | 991.2                      | 1971         | 72 05 - ABAND 77 02            |
| 32   | 5.50                        | 0.080    | 0.60          | 0.90      | 41                             | 943               | 33   | 10 695              | 987.3                      | 1980         | 82 12 - SUSP 82 08             |
| 80   | 3.88                        | 0.240    | 0.20          | 0.82      | 70                             | 888               | 31   | 10 744              | 1 024.2                    | 1983         | 85 06                          |
| 80   | 8.82                        | 0.250    | 0.15          | 0.88      | 50                             | 891               | 30   | 10 855              | 1 832.3                    | 1982         | 84 09                          |
| 48   | 6.71                        | 0.250    | 0.19          | 0.88      | 50                             | 888               | 31   | 10 750              | 1 024.4                    | 1983         | 85 04                          |
| 16   | 1.50                        | 0.210    | 0.35          | 0.88      | 53                             | 893               | 29   | 10 340              | 1 039.8                    | 1983         | 84 05                          |
| 64   | 2.50                        | 0.150    | 0.30          | 0.88      | 53                             | 893               | 31   | 10 733              | 1 029.6                    | 1983         | 85 12                          |
| 256  | 3.03                        | 0.210    | 0.26          | 0.83      | 73                             | 845               | 40   | 11 360              | 1 329.2                    | 1972         | 84 01                          |
| 192  | 3.35                        | 0.200    | 0.30          | 0.83      | 69                             | 860               | 35   | 11 284              | 1 326.0                    | 1972         | 85 09                          |
| 16   | 3.08                        | 0.210    | 0.25          | 0.85      | 56                             | 887               | 41   | 11 430              | 1 405.8                    | 1977         | 83 12                          |
| 16   | 7.20                        | 0.055    | 0.23          | 0.96      | 10                             | 964               | 51   | 21 124              | 1 720.3                    | 1980         | 81 06 - ABAND 84 10            |
| 16   | 4.20                        | 0.330    | 0.24          | 0.83      | 209                            | 908               | 26   | 5 237               | 702.1                      | 1979         | 80 11                          |
| 16   | 1.93                        | 0.260    | 0.23          | 0.94      | 24                             | 954               | 36   | 6 510               | 873.0                      | 1978         | 85 12 - ABAND 83 12            |
| 32   | 3.70                        | 0.260    | 0.20          | 0.93      | 21                             | 908               | 34   | 6 584               | 962.2                      | 1984         | 85 06                          |
| 16   | 7.00                        | 0.220    | 0.54          | 0.97      | 9                              | 956               | 35   | 7 492               | 888.2                      | 1980         | 83 05                          |
| 426  | 6.31                        | 0.230    | 0.20          | 0.85      | 66                             | 876               | 35   | 10 480              | 1 171.0                    | 1968         | 83 12 - GPP                    |
| 233  | 3.21                        | 0.210    | 0.30          | 0.84      | 62                             | 887               | 45   | 10 640              | 1 141.5                    | 1970         | 85 06                          |
| 110  | 2.50                        | 0.160    | 0.30          | 0.85      | 66                             | 876               | 35   | 10 270              | 1 174.7                    | 1968         | 85 12                          |
| 65   | 1.22                        | 0.210    | 0.38          | 0.85      | 51                             | 849               | 40   | 10 260              | 1 183.5                    | 1973         | 74 03 - SUSP 74 02             |
| 64   | 2.00                        | 0.230    | 0.25          | 0.85      | 66                             | 869               | 32   | 9 990               | 1 218.6                    | 1980         | 80 12                          |
| 128  | 1.64                        | 0.200    | 0.28          | 0.88      | 41                             | 876               | 31   | 10 980              | 1 185.1                    | 1973         | 80 07 - GPP                    |
| 32   | 3.05                        | 0.160    | 0.48          | 0.88      | 41                             | 876               | 35   | 11 000              | 1 209.4                    | 1973         | 79 01 - SUSP 78 09             |
| 64   | 9.00                        | 0.210    | 0.50          | 0.84      | 76                             | 901               | 37   | 11 022              | 1 250.7                    | 1983         | 84 06                          |
| 64   | 3.10                        | 0.100    | 0.42          | 0.85      | 50                             | 916               | 71   | 12 460              | 1 688.5                    | 1978         | 79 08 - SUSP 84 07             |
| 16   | 6.40                        | 0.080    | 0.55          | 0.90      | 37                             | 963               | 61   | 12 423              | 1 650.8                    | 1981         | 83 10 - SUSP 83 08             |
| 16   | 6.60                        | 0.070    | 0.53          | 0.90      | 37                             | 963               | 61   | 12 134              | 1 615.2                    | 1981         | 83 10 - SUSP 83 09             |
| 87   | 3.05                        | 0.250    | 0.25          | 0.86      | 64                             | 887               | 34   | 10 890              | 1 134.2                    | 1967         | 73 12                          |
| 32   | 5.18                        | 0.190    | 0.32          | 0.90      | 33                             | 887               | 44   | 11 620              | 1 174.7                    | 1967         | 68 10 - ABAND 69 10            |
| 96   | 4.27                        | 0.200    | 0.33          | 0.90      | 54                             | 934               | 33   | 12 220              | 1 147.0                    | 1975         | 84 09                          |
| 464  |                             |          |               |           | 66                             | 904               | 56   | 12 270              | 1 184.5                    | 1968         | 81 12                          |
| 192  | 1.35                        | 0.190    | 0.30          | 0.87      |                                |                   |      |                     |                            |              |                                |
| 272  | 4.76                        | 0.190    | 0.30          | 0.87      |                                |                   |      |                     |                            |              |                                |
| 64   | 3.96                        | 0.140    | 0.40          | 0.90      | 44                             | 952               | 37   | 12 170              | 1 127.2                    | 1969         | 69 03                          |
| 255  | 4.12                        | 0.230    | 0.15          | 0.90      | 44                             | 946               | 38   | 12 130              | 1 132.3                    | 1970         | 85 12                          |
| 65   | 1.22                        | 0.190    | 0.45          | 0.90      | 43                             | 921               | 38   | 13 460              | 1 117.7                    | 1970         | 74 12 - SUSP 84 05             |
| 115  | 10.66                       | 0.230    | 0.33          | 0.90      | 44                             | 927               | 33   | 12 250              | 1 094.3                    | 1974         | 85 06 - GPP                    |
| 130  | 1.68                        | 0.160    | 0.33          | 0.90      | 44                             | 927               | 34   | 11 220              | 1 106.7                    | 1974         | 77 12                          |
| 128  |                             |          |               |           | 44                             | 927               | 32   | 11 790              | 1 128.0                    | 1976         | 84 10                          |
| 16   | 1.50                        | 0.220    | 0.10          | 0.90      |                                |                   |      |                     |                            |              |                                |
| 112  | 6.10                        | 0.220    | 0.26          | 0.90      |                                |                   |      |                     |                            |              | - GPP                          |

TABLE 2-4

| FIELD<br>POOL                      | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                    | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                    |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                    | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| LITTLE BOW 015-19W4<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE M                  | 147.0                          | 0.06     |          | 8.8                            |                                | 8.8                            | 7.5                            | 1.3                                  |
| UPPER MANNVILLE N                  | 21.2                           | 0.10     |          | 2.1                            |                                | 2.1                            | 0.9                            | 1.2                                  |
| UPPER MANNVILLE O                  | 146.0                          | <0.02    |          | 1.7                            |                                | 1.7                            | 1.7                            |                                      |
| UPPER MANNVILLE P                  | 400.0                          | 0.10     |          | 40.0                           |                                | 40.0                           | 17.1                           | 22.9                                 |
| UPPER MANNVILLE Q                  | 50.4                           | 0.07     |          | 3.5                            |                                | 3.5                            | 1.8                            | 1.7                                  |
| UPPER MANNVILLE R                  | 45.3                           | 0.05     |          | 2.3                            |                                | 2.3                            | 1.6                            | 0.7                                  |
| UPPER MANNVILLE S                  | 739.0                          | 0.10     |          | 73.9                           |                                | 73.9                           | 14.8                           | 59.1                                 |
| UPPER MANNVILLE T                  | 1 200.0                        | 0.10     | 0.10     | 120.0                          | 120.0                          | 240.0                          | 74.1                           | 165.9                                |
| WATER FLOOD                        |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE U                  | 1 700.0                        | 0.10     |          | 170.0                          | ERSO                           | 170.0                          | 69.6                           | 100.4                                |
| UPPER MANNVILLE V                  | 50.1                           | 0.10     |          | 5.0                            |                                | 5.0                            | 0.1                            | 4.9                                  |
| UPPER MANNVILLE W                  | 1 800.0                        | 0.10     |          | 180.0                          | ERSO                           | 180.0                          | 65.3                           | 114.7                                |
| UPPER MANNVILLE Y                  | 69.1                           | 0.10     |          | 6.9                            |                                | 6.9                            | 0.5                            | 6.4                                  |
| UPPER MANNVILLE Z                  | 51.1                           | 0.10     |          | 5.1                            |                                | 5.1                            | 1.7                            | 3.4                                  |
| UPPER MANNVILLE CC                 | 44.9                           | 0.05     |          | 2.2                            |                                | 2.2                            | 0.3                            | 1.9                                  |
| UPPER MANNVILLE DD                 | 50.5                           | 0.10     |          | 5.1                            |                                | 5.1                            | 0.5                            | 4.6                                  |
| LOWER MANNVILLE A                  | 134.0                          | 0.05     |          | 6.7                            |                                | 6.7                            | 1.8                            | 4.9                                  |
| LOWER MANNVILLE E                  | 234.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| LOWER MANNVILLE H                  | 86.0                           | 0.03     |          | 2.6                            |                                | 2.6                            | 0.4                            | 2.2                                  |
| LOWER MANNVILLE I                  | 78.3                           | 0.10     |          | 7.8                            |                                | 7.8                            | 2.8                            | 5.0                                  |
| LOWER MANNVILLE J                  | 278.0                          | 0.04     |          | 11.1                           |                                | 11.1                           | 7.6                            | 3.5                                  |
| LOWER MANNVILLE L                  | 48.0                           | 0.10     |          | 4.8                            |                                | 4.8                            | 1.9                            | 2.9                                  |
| LOWER MANNVILLE M                  | 40.3                           | 0.10     |          | 4.0                            |                                | 4.0                            | 1.7                            | 2.3                                  |
| LOWER MANNVILLE N                  | 27.4                           | 0.10     |          | 2.7                            |                                | 2.7                            | 0.4                            | 2.3                                  |
| LOWER MANNVILLE P                  | 23.5                           | 0.10     |          | 2.4                            |                                | 2.4                            | 0.9                            | 1.5                                  |
| LOWER MANNVILLE U                  | 57.5                           | 0.10     |          | 5.8                            |                                | 5.8                            | 0.2                            | 5.6                                  |
| LOWER MANNVILLE V                  | 28.4                           | 0.10     |          | 2.8                            |                                | 2.8                            | 0.2                            | 2.6                                  |
| LIVINGSTONE A                      | 91.7                           | 0.05     |          | 4.6                            |                                | 4.6                            | 0.1                            | 4.5                                  |
| LLOYDMINSTER 050-01W5              |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY D                           | 188.0                          | 0.05     |          | 9.4                            |                                | 9.4                            | 3.9                            | 5.5                                  |
| COLONY E                           | 55.0                           | 0.02     |          | 1.1                            |                                | 1.1                            | 0.4                            | 0.7                                  |
| COLONY F                           | 300.0                          | 0.05     |          | 15.0                           |                                | 15.0                           | 7.6                            | 7.4                                  |
| COLONY G                           | 113.0                          | 0.05     |          | 5.6                            |                                | 5.6                            | 3.5                            | 2.1                                  |
| COLONY H                           | 48.0                           | 0.05     |          | 2.4                            |                                | 2.4                            | 1.1                            | 1.3                                  |
| COLONY I                           | 32.0                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| COLONY J                           | 106.0                          | 0.05     |          | 5.3                            |                                | 5.3                            | 2.3                            | 3.0                                  |
| COLONY K                           | 40.9                           | 0.05     |          | 2.1                            |                                | 2.1                            | 0.5                            | 1.6                                  |
| COLONY N                           | 61.6                           | 0.05     |          | 3.1                            |                                | 3.1                            | 1.0                            | 2.1                                  |
| COLONY O                           | 45.7                           | 0.05     |          | 2.3                            |                                | 2.3                            | 0.3                            | 2.0                                  |
| MCLAREN A                          | 1 080.0                        | 0.05     |          | 54.0                           |                                | 54.0                           | 6.5                            | 47.5                                 |
| WASECA A                           | 141.0                          | 0.05     |          | 7.1                            |                                | 7.1                            | 0.5                            | 6.6                                  |
| SPARKY B TOTAL                     | 12 400.0                       |          |          | 698.0                          | 61.2                           | 759.0                          | 407.8                          | 351.2                                |
| PRIMARY AREA                       | 10 900.0                       | 0.05     |          | 545.0                          |                                | 545.0                          |                                |                                      |
| WATER FLOOD AREA                   | 1 530.0                        | 0.10     | 0.04     | 153.0                          | 61.2                           | 214.0                          |                                |                                      |
| SPARKY F                           | 8 040.0                        | 0.04     |          | 321.0                          |                                | 321.0                          | 277.4                          | 43.6                                 |
| SPARKY G                           | 19 500.0                       | 0.05     |          | 975.0                          |                                | 975.0                          | 512.7                          | 462.3                                |
| SPARKY H                           | 1 800.0                        | 0.05     |          | 90.0                           |                                | 90.0                           | 43.5                           | 46.5                                 |
| SPARKY J                           | 3 180.0                        | 0.04     |          | 127.0                          |                                | 127.0                          | 85.0                           | 42.0                                 |
| SPARKY K                           | 21 200.0                       | 0.04     |          | 848.0                          |                                | 848.0                          | 525.1                          | 322.9                                |
| SPARKY L                           | 793.0                          | <0.02    |          | 13.8                           |                                | 13.8                           | 13.8                           |                                      |
| SPARKY M                           | 267.0                          | 0.05     |          | 13.4                           |                                | 13.4                           | 1.1                            | 12.3                                 |
| SPARKY N                           | 28.1                           | <0.03    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| SPARKY O                           | 337.0                          | <0.01    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| SPARKY P                           | 755.0                          | 0.01     |          | 7.6                            |                                | 7.6                            | 4.1                            | 3.5                                  |
| SPARKY Q                           | 4 880.0                        | <0.02    |          | 64.7                           |                                | 64.7                           | 64.7                           |                                      |
| SPARKY R                           | 3 050.0                        | 0.04     |          | 122.0                          |                                | 122.0                          | 59.0                           | 63.0                                 |
| SPARKY S                           | 365.0                          | <0.02    |          | 6.0                            |                                | 6.0                            | 4.3                            | 1.7                                  |
| SPARKY T                           | 186.0                          | 0.03     |          | 5.6                            |                                | 5.6                            | 5.6                            |                                      |
| SPARKY U                           | 183.0                          | <0.02    |          | 3.0                            |                                | 3.0                            | 3.0                            |                                      |
| SPARKY X                           | 2 860.0                        | 0.01     |          | 28.6                           |                                | 28.6                           | 15.8                           | 12.8                                 |
| SPARKY EE                          | 236.0                          | 0.05     |          | 11.8                           |                                | 11.8                           | 8.0                            | 3.8                                  |
| SPARKY FF                          | 408.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| SPARKY KK                          | 1 100.0                        | 0.05     |          | 55.0                           |                                | 55.0                           | 29.7                           | 25.3                                 |
| SPARKY NN                          | 143.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| SPARKY DD                          | 355.0                          | 0.02     |          | 7.1                            |                                | 7.1                            | 0.2                            | 6.9                                  |
| SPARKY QQ                          | 46.3                           | <0.02    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| SPARKY RR                          | 124.0                          | <0.02    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| SPARKY SS                          | 201.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| SPARKY TT                          | 144.0                          | <0.01    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| SPARKY UU                          | 105.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GUR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 2.10                        | 0.180    | 0.30          | 0.87      | 57                             | 887               | 36   | 12 180              | 1 221.0                    | 1977         | 81 12                          |
| 16    | 1.20                        | 0.170    | 0.28          | 0.90      | 44                             | 928               | 35   | 12 280              | 1 154.4                    | 1978         | 79 04                          |
| 32    | 3.00                        | 0.220    | 0.23          | 0.90      | 55                             | 915               | 32   | 11 200              | 1 095.5                    | 1979         | 85 12 - SUSP 84 01             |
| 64    | 4.47                        | 0.210    | 0.26          | 0.90      | 47                             | 864               | 32   | 10 768              | 1 131.9                    | 1979         | 85 12 - GPP                    |
| 32    | 2.50                        | 0.100    | 0.30          | 0.90      | 68                             | 912               | 36   | 12 200              | 1 159.8                    | 1979         | 85 10 - GPP                    |
| 32    | 1.73                        | 0.130    | 0.30          | 0.90      | 58                             | 922               | 33   | 11 852              | 1 162.8                    | 1979         | 80 07 - GPP                    |
| 64    | 7.57                        | 0.220    | 0.23          | 0.90      | 47                             | 937               | 33   | 11 889              | 1 075.4                    | 1978         | 82 10                          |
| 85    | 9.20                        | 0.240    | 0.29          | 0.90      | 44                             | 927               | 33   | 12 372              | 1 117.2                    | 1975         | 85 06 - GPP                    |
| 140   | 6.90                        | 0.230    | 0.13          | 0.88      | 49                             | 947               | 31   | 11 263              | 1 126.3                    | 1982         | 85 09                          |
| 16    | 3.60                        | 0.190    | 0.48          | 0.88      | 56                             | 928               | 34   | 12 183              | 1 074.5                    | 1982         | 83 03 - SUSP 85 02             |
| 169   | 7.12                        | 0.210    | 0.19          | 0.88      | 49                             | 947               | 32   | 11 827              | 1 127.1                    | 1983         | 85 09                          |
| 16    | 3.00                        | 0.200    | 0.20          | 0.90      | 47                             | 946               | 32   | 11 638              | 1 134.8                    | 1983         | 83 06 - SUSP 83 07             |
| 16    | 1.80                        | 0.240    | 0.16          | 0.88      | 56                             | 928               | 34   | 11 638              | 1 117.7                    | 1972         | 83 09                          |
| 16    | 2.00                        | 0.240    | 0.35          | 0.90      | 47                             | 946               | 32   | 11 915              | 1 169.3                    | 1982         | 84 02 - SUSP 84 10             |
| 16    | 2.70                        | 0.200    | 0.35          | 0.90      | 44                             | 934               | 34   | 12 179              | 1 144.1                    | 1983         | 84 09                          |
| 32    | 7.38                        | 0.160    | 0.48          | 0.93      | 37                             | 951               | 30   | 12 240              | 1 140.6                    | 1968         | 84 06                          |
| 65    | 2.13                        | 0.250    | 0.25          | 0.90      | 43                             | 934               | 41   | 12 480              | 1 215.8                    | 1973         | 77 03 - SUSP 77 09             |
| 32    | 2.70                        | 0.170    | 0.35          | 0.90      | 44                             | 940               | 38   | 12 410              | 1 193.9                    | 1976         | 79 12 - SUSP 80 10             |
| 16    | 4.27                        | 0.180    | 0.30          | 0.90      | 46                             | 946               | 33   | 11 970              | 1 114.0                    | 1977         | 77 12 - GPP                    |
| 16    | 9.45                        | 0.230    | 0.12          | 0.90      | 44                             | 965               | 36   | 12 820              | 1 198.2                    | 1977         | 85 12 - GPP                    |
| 16    | 3.00                        | 0.170    | 0.35          | 0.90      | 35                             | 950               | 35   | 12 730              | 1 181.0                    | 1979         | 79 10 - GPP                    |
| 32    | 1.00                        | 0.200    | 0.30          | 0.90      | 85                             | 970               | 31   | 12 070              | 1 205.8                    | 1979         | 85 12 - GPP                    |
| 32    | 0.80                        | 0.170    | 0.30          | 0.90      | 46                             | 952               | 33   | 12 470              | 1 165.4                    | 1978         | 80 06                          |
| 16    | 1.60                        | 0.170    | 0.40          | 0.90      | 46                             | 951               | 31   | 12 203              | 1 136.2                    | 1979         | 80 05 - GPP                    |
| 16    | 3.80                        | 0.185    | 0.45          | 0.93      | 37                             | 952               | 30   | 11 542              | 1 219.5                    | 1981         | 83 08 - SUSP 83 11             |
| 16    | 2.30                        | 0.140    | 0.40          | 0.92      | 37                             | 951               | 30   | 12 346              | 1 175.8                    | 1982         | 84 02 - SUSP 84 10             |
| 64    | 4.00                        | 0.070    | 0.45          | 0.93      | 21                             | 985               | 42   | 12 898              | 1 212.3                    | 1982         | 83 01 - SUSP 83 09             |
| 32    | 3.26                        | 0.280    | 0.35          | 0.99      | 8                              | 983               | 25   | 2 880               | 547.1                      | 1977         | 79 06 - GPP                    |
| 16    | 1.86                        | 0.300    | 0.37          | 0.98      | 10                             | 961               | 28   | 2 970               | 539.2                      | 1977         | 79 01                          |
| 38    | 2.77                        | 0.320    | 0.10          | 0.99      | 11                             | 975               | 28   | 3 060               | 548.2                      | 1977         | 80 12 - GPP                    |
| 16    | 3.70                        | 0.320    | 0.40          | 0.99      | 9                              | 962               | 24   | 3 000               | 542.3                      | 1978         | 79 10 - GPP                    |
| 8     | 2.10                        | 0.320    | 0.10          | 0.99      | 10                             | 962               | 28   | 3 010               | 540.6                      | 1975         | 79 12 - SUSP 81 01             |
| 8     | 2.10                        | 0.320    | 0.40          | 0.99      | 10                             | 980               | 28   | 3 020               | 541.9                      | 1977         | 84 12 - SUSP 81 08             |
| 32    | 2.00                        | 0.280    | 0.40          | 0.99      | 10                             | 981               | 28   | 3 120               | 542.7                      | 1982         | 85 12 - GPP                    |
| 4     | 4.30                        | 0.320    | 0.25          | 0.99      | 10                             | 970               | 22   | 3 447               | 591.7                      | 1979         | 84 04 - SUSP 84 12             |
| 8     | 4.90                        | 0.270    | 0.60          | 0.97      | 12                             | 988               | 25   | 3 050               | 545.8                      | 1980         | 84 07                          |
| 4     | 5.50                        | 0.300    | 0.30          | 0.99      | 10                             | 985               | 28   | 3 050               | 573.0                      | 1983         | 84 08                          |
| 112   | 4.28                        | 0.330    | 0.31          | 0.99      | 12                             | 965               | 24   | 3 953               | 556.7                      | 1983         | 85 11                          |
| 16    | 3.70                        | 0.300    | 0.20          | 0.99      | 9                              | 983               | 27   | 3 940               | 531.7                      | 1982         | 82 08 - GPP                    |
| 747   |                             |          |               |           | 10                             | 959               | 19   | 3 718               | 583.2                      | 1966         | 80 12                          |
| 667   | 6.07                        | 0.320    | 0.15          | 0.99      |                                |                   |      |                     |                            |              |                                |
| 80    | 7.10                        | 0.320    | 0.15          | 0.99      |                                |                   |      |                     |                            |              | - GPP                          |
| 712   | 3.96                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 010               | 588.3                      | 1947         | 77 12 - GPP                    |
| 1 631 | 5.44                        | 0.300    | 0.26          | 0.99      | 10                             | 959               | 22   | 4 070               | 599.8                      | 1963         | 85 12                          |
| 232   | 2.72                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 3 830               | 544.7                      | 1961         | 85 12 - GPP                    |
| 339   | 3.29                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 3 990               | 576.7                      | 1956         | 76 12                          |
| 2 397 | 3.45                        | 0.320    | 0.19          | 0.99      | 10                             | 959               | 22   | 3 920               | 579.0                      | 1947         | 84 12 - GPP                    |
| 93    | 2.99                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 3 920               | 574.9                      | 1951         | 82 12 - SUSP 75 04             |
| 32    | 2.90                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 030               | 595.0                      | 1945         | 85 06                          |
| 16    | 0.61                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 060               | 598.6                      | 1944         | 71 06 - ABAND 54 10            |
| 32    | 3.66                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 010               | 582.8                      | 1940         | 71 06 - ABAND 56 06            |
| 64    | 4.23                        | 0.320    | 0.12          | 0.99      | 15                             | 980               | 22   | 4 050               | 590.1                      | 1964         | 84 02 - GPP                    |
| 377   | 4.54                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 020               | 577.6                      | 1944         | 82 12 - SUSP 77 09             |
| 240   | 5.03                        | 0.300    | 0.15          | 0.99      | 10                             | 959               | 22   | 4 030               | 577.9                      | 1967         | 83 12 - GPP                    |
| 32    | 3.96                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 090               | 600.8                      | 1965         | 75 07 - GPP                    |
| 32    | 2.01                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 020               | 577.9                      | 1952         | 71 06 - ABAND 65 10            |
| 16    | 3.96                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 060               | 577.3                      | 1948         | 71 06 - ABAND 55 01            |
| 228   | 5.09                        | 0.300    | 0.17          | 0.99      | 6                              | 959               | 22   | 4 840               | 580.0                      | 1974         | 85 12 - GPP                    |
| 32    | 3.50                        | 0.280    | 0.24          | 0.99      | 10                             | 986               | 22   | 3 480               | 569.5                      | 1977         | 79 03 - GPP                    |
| 32    | 5.30                        | 0.300    | 0.19          | 0.99      |                                | 979               | 21   | 3 380               | 576.0                      | 1977         | 83 12 - SUSP 81 07             |
| 148   | 3.15                        | 0.310    | 0.23          | 0.99      | 9                              | 977               | 19   | 3 940               | 566.8                      | 1982         | 85 12                          |
| 16    | 5.00                        | 0.270    | 0.33          | 0.99      | 9                              | 986               | 27   | 3 940               | 568.8                      | 1977         | 83 12 - SUSP 81 06             |
| 16    | 8.50                        | 0.310    | 0.15          | 0.99      | 9                              | 959               | 16   | 3 630               | 616.3                      | 1978         | 79 02                          |
| 16    | 1.50                        | 0.300    | 0.35          | 0.99      | 9                              | 985               | 27   | 4 070               | 594.3                      | 1978         | 83 12 - SUSP 81 12             |
| 16    | 3.30                        | 0.300    | 0.21          | 0.99      | 9                              | 972               | 23   | 3 960               | 572.9                      | 1978         | 84 12 - SUSP 84 05             |
| 16    | 5.50                        | 0.320    | 0.28          | 0.99      | 9                              | 985               | 27   | 4 000               | 592.8                      | 1978         | 83 12 - SUSP 79 05             |
| 8     | 6.90                        | 0.340    | 0.21          | 0.97      | 10                             | 975               | 22   | 2 640               | 564.6                      | 1978         | 83 12 - ABAND 82 10            |
| 16    | 2.90                        | 0.300    | 0.24          | 0.99      | 9                              | 979               | 27   | 4 240               | 627.1                      | 1978         | 84 12 - SUSP 80 01             |

TABLE 2-4

| FIELD<br>POOL                         | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|---------------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                       | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                       |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                       | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| LLOYDMINSTER 050-01W5<br>(CONTINUED)  |                                |          |          |                                |                                |                                |                                |                                      |
| SPARKY VV                             | 1 220.0                        | 0.05     |          | 61.0                           |                                | 61.0                           | 7.9                            | 53.1                                 |
| SPARKY WW                             | 263.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| SPARKY XX                             | 760.0                          | 0.05     |          | 38.0                           |                                | 38.0                           | 21.1                           | 16.9                                 |
| SPARKY YY                             | 89.1                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| SPARKY ZZ                             | 122.0                          | 0.05     |          | 6.1                            |                                | 6.1                            | 0.5                            | 5.6                                  |
| SPARKY C & GENERAL<br>PETROLEUM A     | 24 300.0                       | 0.06     |          | 1 460.0                        |                                | 1 460.0                        | 1 143.4                        | 316.6                                |
| SPARKY & GENERAL<br>PETROLEUM C&D TOT | 76 700.0                       |          |          | 3 810.0                        | 310.0                          | 4 120.0                        | 2 680.6                        | 1 439.4                              |
| PRIMARY AREA                          | 66 200.0                       | <0.04    |          | 2 760.0                        |                                | 2 760.0                        |                                |                                      |
| WATER FLOOD AREA                      | 10 500.0                       | 0.10     | 0.03     | 1 050.0                        | 310.0                          | 1 360.0                        |                                |                                      |
| SPARKY E & GENERAL<br>PETROLEUM F     | 6 940.0                        | <0.07    |          | 445.0                          |                                | 445.0                          | 310.8                          | 134.2                                |
| SPARKY D & GENERAL<br>PETROLEUM B     | 3 610.0                        | 0.03     |          | 108.0                          |                                | 108.0                          | 78.9                           | 29.1                                 |
| SPARKY I & GENERAL<br>PETROLEUM K     | 10 300.0                       | <0.05    |          | 416.0                          |                                | 416.0                          | 319.7                          | 96.3                                 |
| SPARKY AAA                            | 520.0                          | 0.04     |          | 20.8                           |                                | 20.8                           | 9.1                            | 11.7                                 |
| SPARKY BBB                            | 236.0                          | 0.05     |          | 11.8                           |                                | 11.8                           | 3.4                            | 8.4                                  |
| SPARKY EEE                            | 126.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| SPARKY FFF                            | 93.9                           | 0.05     |          | 4.7                            |                                | 4.7                            | 0.1                            | 4.6                                  |
| SPARKY GGG                            | 177.0                          | 0.05     |          | 8.9                            |                                | 8.9                            | 1.9                            | 7.0                                  |
| SPARKY HHH                            | 71.0                           | 0.05     |          | 3.6                            |                                | 3.6                            | 0.2                            | 3.4                                  |
| SPARKY III                            | 149.0                          | 0.05     |          | 7.5                            |                                | 7.5                            | 3.0                            | 4.5                                  |
| SPARKY JJJ                            | 228.0                          | 0.03     |          | 6.8                            |                                | 6.8                            | 1.1                            | 5.7                                  |
| SPARKY KKK                            | 137.0                          | 0.05     |          | 6.9                            |                                | 6.9                            | 1.0                            | 5.9                                  |
| SPARKY LLL                            | 336.0                          | 0.05     |          | 16.8                           |                                | 16.8                           | 3.3                            | 13.5                                 |
| SPARKY MMM                            | 60.9                           | 0.05     |          | 3.0                            |                                | 3.0                            | 1.0                            | 2.0                                  |
| SPARKY NNN                            | 32.9                           | 0.01     |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| SPARKY OOO                            | 297.0                          | 0.05     |          | 14.9                           |                                | 14.9                           | 3.4                            | 11.5                                 |
| SPARKY PPP                            | 49.4                           | 0.05     |          | 2.5                            |                                | 2.5                            | 0.1                            | 2.4                                  |
| SPARKY QQQ                            | 71.4                           | 0.05     |          | 3.6                            |                                | 3.6                            | 0.8                            | 2.8                                  |
| SPARKY SSS                            | 166.0                          | 0.02     |          | 3.3                            |                                | 3.3                            | 0.8                            | 2.6                                  |
| SPARKY TTT                            | 150.0                          | 0.05     |          | 7.5                            |                                | 7.5                            | 0.6                            | 6.9                                  |
| SPARKY UUU                            | 155.0                          | 0.05     |          | 7.8                            |                                | 7.8                            | 0.8                            | 7.0                                  |
| SPARKY WWW                            | 73.2                           | 0.05     |          | 3.7                            |                                | 3.7                            | 1.3                            | 2.4                                  |
| SPARKY XXX                            | 186.0                          | 0.02     |          | 3.7                            |                                | 3.7                            | 0.7                            | 3.0                                  |
| SPARKY YYY                            | 149.0                          | 0.05     |          | 7.5                            |                                | 7.5                            |                                | 7.5                                  |
| SPARKY ZZZ                            | 1 340.0                        | 0.05     |          | 67.0                           |                                | 67.0                           | 6.8                            | 60.2                                 |
| GENERAL PETROLEUM E                   | 186.0                          | 0.05     |          | 9.4                            |                                | 9.4                            | 0.1                            | 9.3                                  |
| GENERAL PETROLEUM I                   | 1 330.0                        | 0.02     |          | 26.6                           |                                | 26.6                           | 12.1                           | 14.5                                 |
| GENERAL PETROLEUM J                   | 527.0                          | 0.05     |          | 26.4                           |                                | 26.4                           | 15.8                           | 10.6                                 |
| GENERAL PETROLEUM L                   | 47.5                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| GENERAL PETROLEUM M                   | 860.0                          | 0.05     |          | 43.0                           |                                | 43.0                           | 11.3                           | 31.7                                 |
| GENERAL PETROLEUM N                   | 130.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| GENERAL PETROLEUM O                   | 56.0                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| GENERAL PETROLEUM Q                   | 597.0                          | 0.05     |          | 29.9                           |                                | 29.9                           | 0.7                            | 29.2                                 |
| GENERAL PETROLEUM R                   | 223.0                          | 0.05     |          | 11.2                           |                                | 11.2                           | 1.8                            | 9.4                                  |
| GENERAL PETROLEUM S                   | 83.2                           | 0.05     |          | 4.2                            |                                | 4.2                            | 1.6                            | 2.6                                  |
| GENERAL PETROLEUM T                   | 106.0                          | 0.05     |          | 5.3                            |                                | 5.3                            | 0.1                            | 5.2                                  |
| GENERAL PETROLEUM U                   | 57.0                           | 0.05     |          | 2.9                            |                                | 2.9                            |                                | 2.9                                  |
| GENERAL PETROLEUM V                   | 175.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LLOYDMINSTER A                        | 176.0                          | 0.02     |          | 3.5                            |                                | 3.5                            | 1.8                            | 1.7                                  |
| LLOYDMINSTER B                        | 392.0                          | 0.01     |          | 3.9                            |                                | 3.9                            | 1.6                            | 2.3                                  |
| LLOYDMINSTER D                        | 165.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LLOYDMINSTER E                        | 170.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| LLOYDMINSTER F                        | 175.0                          | 0.02     |          | 3.5                            |                                | 3.5                            | 1.4                            | 2.1                                  |
| LLOYDMINSTER G                        | 179.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| LLOYDMINSTER I                        | 89.6                           | 0.05     |          | 4.5                            |                                | 4.5                            | 0.5                            | 4.0                                  |
| LLOYDMINSTER K                        | 271.0                          | 0.05     |          | 13.6                           |                                | 13.6                           | 1.2                            | 12.4                                 |
| LLOYDMINSTER M                        | 2 150.0                        | 0.05     |          | 108.0                          |                                | 108.0                          | 18.7                           | 89.3                                 |
| CUMMINGS A                            | 359.0                          | 0.03     |          | 10.8                           |                                | 10.8                           | 2.5                            | 8.3                                  |
| CUMMINGS B                            | 487.0                          | 0.05     |          | 24.4                           |                                | 24.4                           | 12.5                           | 11.9                                 |
| CUMMINGS C                            | 66.1                           | 0.03     |          | 2.0                            |                                | 2.0                            | 0.5                            | 1.5                                  |
| CUMMINGS D                            | 238.0                          | 0.05     |          | 11.9                           |                                | 11.9                           | 1.4                            | 10.5                                 |
| CUMMINGS E                            | 58.7                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| MAJEAU 056-04W5                       |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A                     | 39.6                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| LOWER MANNVILLE B                     | 62.5                           | 0.10     |          | 6.3                            |                                | 6.3                            | 1.3                            | 5.0                                  |
| LOWER MANNVILLE D                     | 64.7                           | 0.10     |          | 6.5                            |                                | 6.5                            | 1.8                            | 4.7                                  |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19   | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DATE | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          | YEAR |                                |
| 80    | 5.85                        | 0.310    | 0.15          | 0.99      | 10                             |                   | 22   | 4 010               | 588.5                      | 1979 | 85 08 - GPP                    |
| 16    | 6.10                        | 0.320    | 0.14          | 0.98      | 10                             | 961               | 24   | 2 460               | 548.7                      | 1978 | 82 12 - SUSP 79 01             |
| 108   | 3.20                        | 0.280    | 0.19          | 0.97      | 10                             | 982               | 24   | 2 460               | 563.6                      | 1978 | 82 08 - GPP                    |
| 16    | 3.00                        | 0.280    | 0.33          | 0.99      | 9                              | 982               | 25   | 3 888               | 528.5                      | 1980 | 83 12 - SUSP 81 10             |
| 16    | 3.80                        | 0.270    | 0.25          | 0.99      | 8                              |                   | 25   | 4 840               | 619.7                      | 1980 | 81 07 - SUSP 85 03             |
| 2 162 | 3.95                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 4 020               | 588.0                      | 1948 | 82 12 - GPP                    |
| 7 426 |                             |          |               |           | 10                             | 959               | 22   | 4 020               | 599.5                      | 1939 | 84 12 - GPP                    |
| 6 681 | 3.47                        | 0.320    | 0.10          | 0.99      |                                |                   |      |                     |                            |      |                                |
| 745   | 4.94                        | 0.320    | 0.10          | 0.99      |                                |                   |      |                     |                            |      |                                |
| 513   | 4.74                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 3 970               | 563.6                      | 1951 | 79 06 - GPP                    |
| 320   | 3.96                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 3 970               | 573.0                      | 1968 | 75 07 - GPP                    |
| 862   | 4.19                        | 0.320    | 0.10          | 0.99      | 10                             | 959               | 22   | 3 990               | 583.7                      | 1944 | 79 07 - GPP                    |
| 64    | 4.10                        | 0.290    | 0.31          | 0.99      | 9                              | 986               | 25   | 3 200               | 606.2                      | 1980 | 84 12                          |
| 32    | 2.93                        | 0.310    | 0.18          | 0.99      | 10                             | 958               | 28   | 3 949               | 559.0                      | 1980 | 82 06                          |
| 16    | 3.80                        | 0.280    | 0.25          | 0.99      | 9                              | 985               | 27   | 3 940               | 594.6                      | 1981 | 82 08 - ABAND 83 05            |
| 16    | 2.50                        | 0.300    | 0.21          | 0.99      | 9                              | 988               | 27   | 3 940               | 598.3                      | 1981 | 82 08 - SUSP 83 11             |
| 16    | 4.50                        | 0.310    | 0.20          | 0.99      | 9                              | 959               | 28   | 4 093               | 597.3                      | 1982 | 82 11                          |
| 16    | 2.30                        | 0.300    | 0.35          | 0.99      | 9                              | 971               | 23   | 4 070               | 595.4                      | 1982 | 83 01 - SUSP 84 12             |
| 32    | 2.40                        | 0.280    | 0.30          | 0.99      | 10                             | 962               | 22   | 3 480               | 553.7                      | 1982 | 85 12                          |
| 16    | 7.00                        | 0.300    | 0.30          | 0.97      | 10                             | 975               | 22   | 4 060               | 598.5                      | 1982 | 85 12                          |
| 8     | 7.77                        | 0.320    | 0.29          | 0.97      | 10                             | 975               | 26   | 4 125               | 624.9                      | 1979 | 84 01 - SUSP 84 12             |
| 48    | 3.19                        | 0.300    | 0.26          | 0.99      | 10                             | 975               | 54   | 3 960               | 572.5                      | 1982 | 84 03                          |
| 4     | 7.00                        | 0.330    | 0.32          | 0.97      | 10                             | 975               | 22   | 4 820               | 618.0                      | 1979 | 83 09                          |
| 16    | 1.00                        | 0.300    | 0.30          | 0.98      | 8                              | 981               | 22   | 4 200               | 622.3                      | 1983 | 80 03 - ABAND 84 05            |
| 32    | 3.50                        | 0.330    | 0.18          | 0.98      |                                | 941               | 19   | 3 771               | 556.4                      | 1983 | 85 12                          |
| 16    | 1.50                        | 0.300    | 0.30          | 0.98      | 8                              | 981               | 22   | 4 190               | 628.3                      | 1983 | 83 11                          |
| 16    | 2.30                        | 0.280    | 0.30          | 0.99      | 10                             | 990               | 25   | 4 060               | 599.8                      | 1983 | 84 03                          |
| 16    | 5.00                        | 0.300    | 0.30          | 0.99      | 9                              | 980               | 27   | 4 240               | 592.0                      | 1984 | 84 08                          |
| 16    | 4.50                        | 0.300    | 0.30          | 0.99      | 10                             | 992               | 22   | 3 989               | 264.8                      | 1984 | 84 08                          |
| 16    | 4.50                        | 0.310    | 0.30          | 0.99      | 10                             | 990               | 22   | 3 940               | 565.9                      | 1984 | 84 12                          |
| 16    | 2.00                        | 0.330    | 0.30          | 0.99      | 10                             |                   | 25   | 3 980               | 490.8                      | 1979 | 80 03                          |
| 16    | 4.50                        | 0.310    | 0.15          | 0.98      | 6                              | 980               | 30   | 2 000               | 599.5                      | 1984 | 85 01                          |
| 16    | 4.00                        | 0.300    | 0.20          | 0.97      | 10                             | 970               | 27   | 2 000               | 592.0                      | 1984 | 85 02                          |
| 128   | 5.92                        | 0.240    | 0.24          | 0.97      | 12                             | 980               | 26   | 3 400               | 594.6                      | 1984 | 85 05                          |
| 16    | 4.27                        | 0.320    | 0.15          | 0.99      | 12                             | 959               | 21   |                     | 602.0                      | 1974 | 75 09                          |
| 198   | 2.76                        | 0.300    | 0.18          | 0.99      | 9                              | 974               | 25   | 3 282               | 599.0                      | 1977 | 85 12 - GPP                    |
| 64    | 3.51                        | 0.300    | 0.21          | 0.99      | 10                             | 984               | 25   | 3 620               | 587.7                      | 1975 | 83 04 - GPP                    |
| 8     | 2.74                        | 0.270    | 0.20          | 0.99      | 9                              | 979               | 27   | 3 910               | 588.0                      | 1977 | 78 05 - SUSP 78 09             |
| 80    | 4.52                        | 0.300    | 0.20          | 0.99      | 8                              | 984               | 27   | 3 730               | 568.7                      | 1977 | 85 12 - GPP                    |
| 16    | 3.65                        | 0.300    | 0.25          | 0.99      | 8                              | 983               | 27   | 3 840               | 580.4                      | 1977 | 80 12 - SUSP 80 11             |
| 8     | 4.00                        | 0.270    | 0.35          | 0.99      | 9                              | 972               | 27   | 3 068               | 615.0                      | 1979 | 79 10 - ABAND 80 05            |
| 16    | 12.70                       | 0.330    | 0.10          | 0.99      | 10                             | 970               | 27   | 3 700               | 607.7                      | 1981 | 82 04 - SUSP 84 12             |
| 16    | 5.00                        | 0.320    | 0.12          | 0.99      | 9                              | 974               | 25   | 3 516               | 567.5                      | 1981 | 82 08                          |
| 16    | 2.50                        | 0.280    | 0.25          | 0.99      | 10                             | 988               | 25   | 3 836               | 641.8                      | 1982 | 82 09 - GPP                    |
| 16    | 3.00                        | 0.280    | 0.20          | 0.99      | 9                              | 959               | 22   | 3 557               | 615.2                      | 1983 | 83 05                          |
| 8     | 3.00                        | 0.300    | 0.20          | 0.99      | 9                              | 983               | 27   | 3 840               | 575.0                      | 1984 | 84 08                          |
| 16    | 4.50                        | 0.310    | 0.20          | 0.98      | 6                              | 970               | 30   | 2 000               | 555.3                      | 1984 | 85 07 - SUSP 85 03             |
| 16    | 4.88                        | 0.285    | 0.20          | 0.99      | 8                              | 979               | 27   | 3 790               | 610.2                      | 1973 | 82 12 - SUSP 83 09             |
| 32    | 5.70                        | 0.310    | 0.30          | 0.99      | 10                             | 959               | 22   | 3 450               | 605.0                      | 1974 | 85 04                          |
| 16    | 4.20                        | 0.310    | 0.20          | 0.99      | 9                              | 973               | 27   | 4 200               | 605.7                      | 1977 | 83 12 - SUSP 80 07             |
| 16    | 4.20                        | 0.320    | 0.20          | 0.99      | 11                             | 992               | 25   | 4 220               | 607.8                      | 1977 | 83 12 - SUSP 78 02             |
| 16    | 4.60                        | 0.300    | 0.20          | 0.99      | 8                              | 974               | 27   | 4 200               | 605.4                      | 1975 | 85 07                          |
| 16    | 7.62                        | 0.270    | 0.45          | 0.99      | 10                             | 991               | 27   | 4 930               | 654.0                      | 1978 | 79 04 - SUSP 82 08             |
| 16    | 2.50                        | 0.290    | 0.22          | 0.99      | 22                             | 975               | 25   | 4 239               | 610.0                      | 1983 | 83 09                          |
| 16    | 6.70                        | 0.290    | 0.12          | 0.99      | 22                             | 978               | 25   | 3 810               | 602.7                      | 1983 | 84 08                          |
| 108   | 7.72                        | 0.310    | 0.16          | 0.99      | 10                             | 983               | 27   | 4 295               | 684.3                      | 1983 | 85 06                          |
| 32    | 5.07                        | 0.290    | 0.23          | 0.99      | 10                             | 972               | 30   | 4 356               | 630.9                      | 1977 | 82 10 - GPP                    |
| 32    | 6.40                        | 0.305    | 0.20          | 0.99      | 9                              | 973               | 27   | 4 340               | 632.8                      | 1977 | 85 12 - GPP                    |
| 16    | 2.10                        | 0.280    | 0.29          | 0.99      | 9                              | 980               | 29   | 5 250               | 727.5                      | 1978 | 79 06 - GPP                    |
| 16    | 6.30                        | 0.280    | 0.15          | 0.99      | 9                              | 988               | 29   | 4 462               | 655.2                      | 1982 | 83 04 - GPP                    |
| 16    | 1.90                        | 0.270    | 0.27          | 0.98      | 9                              | 980               | 29   | 4 050               | 697.8                      | 1983 | 83 11 - ABAND 84 05            |
| 32    | 1.40                        | 0.170    | 0.35          | 0.80      | 145                            | 920               | 32   | 9 735               | 1 223.0                    | 1981 | 84 12 - SUSP 82 10             |
| 16    | 5.00                        | 0.140    | 0.38          | 0.90      | 70                             | 921               | 58   | 9 650               | 1 245.0                    | 1980 | 80 10                          |
| 32    | 2.50                        | 0.150    | 0.35          | 0.83      | 66                             | 934               | 49   | 9 434               | 1 249.6                    | 1979 | 85 12                          |

TABLE 2-4

| FIELD<br>POOL                          | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>MAJEAU 056-04W5<br/>(CONTINUED)</b> |                                |          |          |                                |                                |                                |                                |                                      |
| BANFF B                                | 529.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| BANFF C                                | 36.6                           | 0.10     |          | 3.7                            |                                | 3.7                            | 0.6                            | 3.1                                  |
| <b>MAJDRVILLE 018-19W4</b>             |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                      | 965.0                          | 0.15     |          | 145.0                          |                                | 145.0                          | 109.1                          | 35.9                                 |
| UPPER MANNVILLE B                      | 296.0                          | 0.05     |          | 14.8                           |                                | 14.8                           | 10.9                           | 3.9                                  |
| UPPER MANNVILLE C                      | 297.0                          | 0.10     |          | 29.7                           |                                | 29.7                           | 11.6                           | 18.1                                 |
| <b>MANNVILLE 051-09W4</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A                      | 826.0                          | 0.03     |          | 24.8                           |                                | 24.8                           | 11.3                           | 13.5                                 |
| UPPER MANNVILLE B                      | 405.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| UPPER MANNVILLE M                      | 420.0                          | <0.01    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| LOWER MANNVILLE D                      | 151.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| <b>MARWAYNE 053-02W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| SPARKY A                               | 1 860.0                        | 0.03     |          | 55.8                           |                                | 55.8                           | 26.8                           | 29.0                                 |
| <b>MATZIWIN 023-14W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| PEKISKO A                              | 1 050.0                        | 0.10     |          | 105.0                          |                                | 105.0                          | 99.7                           | 5.3                                  |
| PEKISKO B                              | 168.0                          | <0.02    |          | 2.3                            |                                | 2.3                            | 2.3                            |                                      |
| <b>MEDICINE HAT 012-05W4</b>           |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                          | 166.0                          | 0.05     |          | 8.3                            |                                | 8.3                            | 3.8                            | 4.5                                  |
| GLAUCONITIC B                          | 350.0                          | 0.05     |          | 17.5                           |                                | 17.5                           |                                | 17.5                                 |
| GLAUCONITIC C                          | 112.0                          | 0.05     |          | 5.6                            |                                | 5.6                            |                                | 5.6                                  |
| LOWER MANNVILLE A                      | 94.0                           | 0.08     |          | 7.5                            |                                | 7.5                            | 5.6                            | 1.9                                  |
| LOWER MANNVILLE C                      | 127.0                          | 0.10     |          | 12.7                           |                                | 12.7                           | 6.8                            | 5.9                                  |
| LOWER MANNVILLE I                      | 252.0                          | 0.05     |          | 12.6                           |                                | 12.6                           | 4.5                            | 8.1                                  |
| LOWER MANNVILLE K                      | 70.3                           | 0.10     |          | 7.0                            |                                | 7.0                            | 1.2                            | 5.8                                  |
| LOWER MANNVILLE M                      | 55.3                           | 0.05     |          | 2.8                            |                                | 2.8                            | 0.4                            | 2.4                                  |
| <b>MEDICINE RIVER<br/>039-03W5</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| ELKTON-SHUNDA B                        | 1 120.0                        | 0.10     |          | 112.0                          |                                | 112.0                          | 78.7                           | 33.3                                 |
| <b>MOONSHINE 057-01W4</b>              |                                |          |          |                                |                                |                                |                                |                                      |
| GRAND RAPIDS B                         | 363.0                          | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| <b>MORGAN 051-04W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| SPARKY A                               | 5 520.0                        | 0.05     |          | 276.0                          |                                | 276.0                          | 134.5                          | 141.5                                |
| WAINWRIGHT A                           | 112.0                          | 0.02     |          | 2.2                            |                                | 2.2                            | 2.2                            |                                      |
| LLOYDMINSTER A                         | 57 500.0                       | 0.01     |          | 575.0                          |                                | 575.0                          | 262.0                          | 313.0                                |
| LLOYDMINSTER B                         | 1 740.0                        | 0.05     |          | 87.0                           |                                | 87.0                           | 2.6                            | 84.4                                 |
| LLOYDMINSTER D                         | 465.0                          | 0.02     |          | 9.3                            |                                | 9.3                            | 0.7                            | 8.6                                  |
| DINA A                                 | 159.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| <b>MORRIS 053-18W4</b>                 |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                          | 82.1                           | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| <b>PADDLE RIVER 057-08W5</b>           |                                |          |          |                                |                                |                                |                                |                                      |
| RUNDLE                                 | 6 040.0                        | <0.04    |          | 204.0                          |                                | 204.0                          | 203.6                          | 0.4                                  |
| <b>PARADISE 047-02W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| CUMMINGS A                             | 100.0                          | 0.02     |          | 2.0                            |                                | 2.0                            | 0.1                            | 1.9                                  |
| <b>PENDANT D'OREILLE<br/>003-08W4</b>  |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE D                            | 427.0                          | <0.01    |          | 1.2                            |                                | 1.2                            | 1.2                            |                                      |
| MANNVILLE L                            | 96.9                           | 0.05     |          | 4.8                            |                                | 4.8                            |                                | 4.8                                  |
| <b>PLAIN 053-12W4</b>                  |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY E                               | 243.0                          | <0.02    |          | 4.0                            |                                | 4.0                            | 3.2                            | 0.8                                  |
| <b>PRINCESS 020-11W4</b>               |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL MANNVILLE E                      | 953.0                          | <0.01    |          | 4.4                            |                                | 4.4                            | 4.4                            |                                      |
| BASAL MANNVILLE I                      | 235.0                          | 0.10     |          | 23.5                           |                                | 23.5                           | 3.7                            | 19.8                                 |
| BASAL MANNVILLE O                      | 690.0                          | <0.01    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| BASAL MANNVILLE P                      | 1 260.0                        | 0.04     |          | 50.4                           |                                | 50.4                           | 40.6                           | 9.8                                  |
| BASAL MANNVILLE Q                      | 775.0                          | <0.01    |          | 2.8                            |                                | 2.8                            | 2.8                            |                                      |
| BASAL MANNVILLE R                      | 248.0                          | <0.01    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| BASAL MANNVILLE U                      | 137.0                          | 0.05     |          | 6.9                            |                                | 6.9                            | 0.2                            | 6.7                                  |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GUR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 65    | 8.84                        | 0.160    | 0.35          | 0.89      | 43                             | 898               | 44   | 10 450              | 1 319.5                    | 1974         | 77 03 - SUSP 77 01             |
| 64    | 1.30                        | 0.100    | 0.45          | 0.80      | 87                             | 903               | 32   | 10 560              | 1 210.3                    | 1982         | 83 02 - SUSP 85 04             |
| 128   | 4.35                        | 0.240    | 0.15          | 0.85      | 59                             | 887               | 60   | 11 900              | 1 378.6                    | 1974         | 83 12                          |
| 32    | 6.40                        | 0.200    | 0.15          | 0.85      | 58                             | 887               | 60   | 11 720              | 1 330.4                    | 1975         | 79 12                          |
| 65    | 3.05                        | 0.240    | 0.26          | 0.85      | 58                             | 887               | 60   | 12 740              | 1 424.3                    | 1975         | 76 09                          |
| 80    | 4.88                        | 0.300    | 0.28          | 0.98      | 10                             | 972               | 33   | 4 900               | 626.8                      | 1971         | 82 12 - GPP                    |
| 65    | 2.74                        | 0.310    | 0.25          | 0.98      | 10                             | 979               | 33   | 4 830               | 619.7                      | 1971         | 72 12 - ABAND 72 05            |
| 65    | 3.05                        | 0.310    | 0.30          | 0.98      | 10                             | 979               | 21   | 3 480               | 586.7                      | 1974         | 78 01 - SUSP 77 11             |
| 16    | 3.90                        | 0.320    | 0.23          | 0.98      | 6                              | 994               | 30   | 2 750               | 719.0                      | 1981         | 82 04 - SUSP 82 10             |
| 160   | 4.19                        | 0.330    | 0.15          | 0.99      | 70                             | 985               | 25   | 2 750               | 464.1                      | 1977         | 82 03 - GPP                    |
| 296   | 5.40                        | 0.104    | 0.30          | 0.90      | 53                             | 915               | 35   | 9 960               | 1 021.1                    | 1962         | 78 12 - GPP                    |
| 32    | 6.25                        | 0.132    | 0.30          | 0.90      | 53                             | 892               | 35   | 9 860               | 1 008.6                    | 1962         | 67 02 - ABAND 71 11            |
| 16    | 6.80                        | 0.220    | 0.23          | 0.90      | 45                             | 961               | 26   | 9 758               | 822.2                      | 1982         | 85 01                          |
| 16    | 13.50                       | 0.240    | 0.25          | 0.90      | 42                             | 952               | 28   | 9 000               | 837.8                      | 1984         | 85 05                          |
| 16    | 4.50                        | 0.230    | 0.25          | 0.90      | 43                             | 952               | 28   | 9 500               | 829.8                      | 1984         | 85 05                          |
| 32    | 2.31                        | 0.230    | 0.43          | 0.97      | 9                              | 960               | 31   | 10 000              | 887.8                      | 1978         | 84 12 - GPP                    |
| 64    | 2.10                        | 0.210    | 0.50          | 0.90      | 44                             | 958               | 27   | 10 060              | 891.0                      | 1979         | 85 12 - GPP                    |
| 112   | 2.75                        | 0.150    | 0.40          | 0.91      | 37                             | 945               | 30   | 10 202              | 927.3                      | 1976         | 84 11 - GPP                    |
| 16    | 2.44                        | 0.230    | 0.14          | 0.91      | 35                             | 979               | 32   | 10 516              | 1 030.8                    | 1977         | 84 09                          |
| 16    | 3.50                        | 0.180    | 0.39          | 0.90      | 45                             | 952               | 26   | 9 200               | 848.8                      | 1981         | 85 05                          |
| 559   | 5.94                        | 0.060    | 0.25          | 0.75      | 59                             | 940               | 70   | 17 590              | 2 296.4                    | 1973         | 75 12                          |
| 16    | 8.50                        | 0.320    | 0.14          | 0.97      | 15                             | 987               | 15   | 1 570               | 473.8                      | 1982         | 82 10 - SUSP 85 04             |
| 622   | 4.07                        | 0.290    | 0.24          | 0.99      |                                | 992               | 21   | 3 450               | 539.6                      | 1977         | 85 12 - GPP                    |
| 16    | 4.00                        | 0.200    | 0.10          | 0.97      | 9                              | 999               | 24   | 2 650               | 556.0                      | 1965         | 82 12                          |
| 3 016 | 7.08                        | 0.320    | 0.15          | 0.99      | 7                              | 993               | 21   | 3 336               | 559.1                      | 1976         | 85 02 - GPP                    |
| 96    | 7.71                        | 0.300    | 0.20          | 0.98      | 10                             | 980               | 25   | 1 768               | 558.9                      | 1983         | 84 12                          |
| 16    | 10.80                       | 0.320    | 0.15          | 0.99      | 12                             | 994               | 25   | 3 000               | 564.0                      | 1984         | 85 04                          |
| 16    | 4.50                        | 0.300    | 0.25          | 0.98      | 10                             | 980               | 25   | 2 824               | 595.1                      | 1983         | 84 03 - ABAND 84 07            |
| 16    | 3.10                        | 0.280    | 0.35          | 0.91      | 40                             | 930               | 29   | 5 730               | 861.5                      | 1980         | 81 09 - ABAND 82 03            |
| 1 616 | 6.92                        | 0.075    | 0.20          | 0.90      | 39                             | 959               | 63   | 12 310              | 1 568.5                    | 1956         | 71 12 - SUSP 71 11             |
| 16    | 2.47                        | 0.320    | 0.20          | 0.99      | 9                              | 999               | 27   | 5 320               | 637.7                      | 1977         | 79 08 - SUSP 83 06             |
| 65    | 6.40                        | 0.210    | 0.40          | 0.82      | 80                             | 910               | 38   | 8 370               | 863.8                      | 1968         | 75 10 - ABAND 74 10            |
| 32    | 3.60                        | 0.180    | 0.43          | 0.82      | 28                             | 923               | 33   | 7 871               | 857.5                      | 1977         | 81 10 - SUSP 80 07             |
| 64    | 2.20                        | 0.280    | 0.34          | 0.95      | 11                             | 927               | 29   | 4 910               | 617.2                      | 1974         | 82 12 - GPP                    |
| 262   | 3.05                        | 0.200    | 0.33          | 0.89      | 53                             | 915               | 33   | 9 960               | 979.9                      | 1968         | 68 09 - ABAND 79 09            |
| 64    | 3.26                        | 0.220    | 0.43          | 0.90      | 40                             | 892               | 32   | 9 259               | 993.2                      | 1965         | 82 11                          |
| 65    | 8.53                        | 0.220    | 0.39          | 0.93      | 32                             | 940               | 34   | 10 380              | 1 004.6                    | 1972         | 75 12 - SUSP 75 05             |
| 195   | 5.30                        | 0.219    | 0.38          | 0.90      | 46                             | 910               | 37   | 9 910               | 968.7                      | 1972         | 75 12 - GPP                    |
| 129   | 5.56                        | 0.207    | 0.42          | 0.90      | 48                             | 892               | 33   | 10 340              | 1 021.7                    | 1972         | 83 12 - ABAND 83 12            |
| 64    | 4.03                        | 0.184    | 0.42          | 0.90      | 47                             | 927               | 33   | 9 090               | 964.4                      | 1973         | 75 12 - ABAND 81 11            |
| 32    | 4.40                        | 0.180    | 0.40          | 0.90      | 42                             | 922               | 32   | 10 187              | 969.7                      | 1982         | 83 09                          |

TABLE 2-4

| FIELD<br>POOL                    | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|----------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| PRINCESS 020-11W4<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL MANNVILLE V                | 182.0                          | 0.05     |          | 9.1                            |                                | 9.1                            | 2.4                            | 6.7                                  |
| BASAL MANNVILLE W                | 80.2                           | 0.10     |          | 8.0                            |                                | 8.0                            | 2.2                            | 5.8                                  |
| PEKISKD A                        | 1 710.0                        | 0.15     |          | 257.0                          |                                | 257.0                          | 205.2                          | 51.8                                 |
| PEKISKD B                        | 242.0                          | 0.10     |          | 24.2                           |                                | 24.2                           | 8.5                            | 15.7                                 |
| PEKISKD C                        | 55.1                           | 0.05     |          | 2.8                            |                                | 2.8                            | 0.3                            | 2.5                                  |
| PEKISKD D                        | 62.4                           | 0.15     |          | 9.4                            |                                | 9.4                            | 4.8                            | 4.6                                  |
| PEKISKD E                        | 32.6                           | 0.15     |          | 4.9                            |                                | 4.9                            | 4.8                            | 0.1                                  |
| JEFFERSON A                      | 531.0                          | 0.10     |          | 53.1                           |                                | 53.1                           | 53.1                           |                                      |
| PROVDST 036-07W4                 |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE V                      | 185.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| UPPER MANNVILLE A                | 10 100.0                       | 0.03     |          | 303.0                          |                                | 303.0                          | 150.9                          | 152.1                                |
| UPPER MANNVILLE B                | 34 200.0                       | 0.03     |          | 1 020.0                        |                                | 1 020.0                        | 377.3                          | 642.7                                |
| UPPER MANNVILLE C                | 1 000.0                        | 0.05     |          | 50.0                           |                                | 50.0                           | 35.9                           | 14.1                                 |
| UPPER MANNVILLE E                | 133.0                          | 0.07     |          | 9.3                            |                                | 9.3                            | 5.5                            | 3.8                                  |
| UPPER MANNVILLE M                | 250.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| UPPER MANNVILLE Q                | 44.2                           | 0.05     |          | 2.2                            |                                | 2.2                            | 1.3                            | 0.9                                  |
| UPPER MANNVILLE U                | 39.1                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| UPPER MANNVILLE V                | 75.0                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| UPPER MANNVILLE X                | 33.5                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| UPPER MANNVILLE BB               | 7 880.0                        | 0.04     |          | 315.0                          |                                | 315.0                          | 112.0                          | 203.0                                |
| UPPER MANNVILLE CC               | 70.2                           | <0.01    |          | 0.3                            |                                | 0.3                            |                                | 0.3                                  |
| UPPER MANNVILLE DD               | 113.0                          | 0.05     |          | 5.7                            |                                | 5.7                            | 1.9                            | 3.8                                  |
| UPPER MANNVILLE JJ               | 183.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| UPPER MANNVILLE KK               | 112.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| UPPER MANNVILLE LL               | 44.7                           | 0.05     |          | 2.2                            |                                | 2.2                            | 0.4                            | 1.8                                  |
| UPPER MANNVILLE SS               | 100.0                          | 0.05     |          | 5.0                            |                                | 5.0                            | 0.6                            | 4.4                                  |
| UPPER MANNVILLE VV               | 33.6                           | 0.05     |          | 1.7                            |                                | 1.7                            | 0.3                            | 1.4                                  |
| UPPER MANNVILLE WW               | 30.4                           | 0.05     |          | 1.5                            |                                | 1.5                            | 0.8                            | 0.7                                  |
| UPPER MANNVILLE XX               | 53.9                           | 0.10     |          | 5.4                            |                                | 5.4                            | 2.4                            | 3.0                                  |
| UPPER MANNVILLE YY               | 137.0                          | 0.10     |          | 13.7                           |                                | 13.7                           | 8.7                            | 5.0                                  |
| UPPER MANNVILLE FFF              | 130.0                          | 0.10     |          | 13.0                           |                                | 13.0                           | 1.1                            | 11.9                                 |
| UPPER MANNVILLE III              | 213.0                          | 0.05     |          | 10.7                           |                                | 10.7                           | 1.1                            | 9.6                                  |
| UPPER MANNVILLE KKK              | 226.0                          | 0.01     |          | 2.3                            |                                | 2.3                            | 0.7                            | 1.6                                  |
| UPPER MANNVILLE LLL              | 181.0                          | 0.05     |          | 9.1                            |                                | 9.1                            | 0.3                            | 8.8                                  |
| UPPER MANNVILLE MMM              | 171.0                          | 0.10     |          | 17.1                           |                                | 17.1                           | 0.8                            | 16.3                                 |
| UPPER MANNVILLE NNN              | 47.8                           | 0.05     |          | 2.4                            |                                | 2.4                            | 0.2                            | 2.2                                  |
| UPPER MANNVILLE OOO              | 120.0                          | 0.05     |          | 6.0                            |                                | 6.0                            | 1.1                            | 4.9                                  |
| UPPER MANNVILLE PPP              | 1 400.0                        | 0.05     |          | 70.0                           |                                | 70.0                           | 5.9                            | 64.1                                 |
| UPPER MANNVILLE RRR              | 498.0                          | 0.05     |          | 22.4                           |                                | 22.4                           | 1.3                            | 21.1                                 |
| UPPER MANNVILLE UUU              | 129.0                          | 0.10     |          | 12.9                           |                                | 12.9                           | 0.7                            | 12.2                                 |
| COLONY A                         | 81.9                           | 0.05     |          | 4.1                            |                                | 4.1                            | 0.5                            | 3.6                                  |
| COLONY B                         | 309.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| CUMMINGS C                       | 243.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| CUMMINGS D                       | 14.3                           | 0.05     |          | 0.7                            |                                | 0.7                            | 0.1                            | 0.6                                  |
| CUMMINGS H                       | 15.5                           | 0.05     |          | 0.8                            |                                | 0.8                            | 0.3                            | 0.5                                  |
| CUMMINGS J                       | 30.0                           | 0.05     |          | 1.5                            |                                | 1.5                            | 0.6                            | 0.9                                  |
| LOWER MANNVILLE C                | 169.0                          | 0.10     |          | 16.9                           |                                | 16.9                           | 6.9                            | 10.0                                 |
| LOWER MANNVILLE E                | 34.1                           | 0.10     |          | 3.4                            |                                | 3.4                            | 1.3                            | 2.1                                  |
| LOWER MANNVILLE H                | 96.0                           | <0.01    |          | 0.9                            |                                | 0.9                            | 0.9                            |                                      |
| LOWER MANNVILLE J                | 90.9                           | 0.05     |          | 4.5                            |                                | 4.5                            | 1.1                            | 3.4                                  |
| LOWER MANNVILLE Z                | 2 600.0                        | 0.10     |          | 260.0                          |                                | 260.0                          | 43.3                           | 216.7                                |
| DINA C                           | 6 170.0                        | 0.05     |          | 309.0                          |                                | 309.0                          | 55.7                           | 253.3                                |
| DINA E                           | 748.0                          | 0.05     |          | 37.4                           |                                | 37.4                           | 3.3                            | 34.1                                 |
| DINA F                           | 37.3                           | 0.05     |          | 1.9                            |                                | 1.9                            | 0.3                            | 1.6                                  |
| DINA G                           | 210.0                          | 0.10     |          | 21.0                           |                                | 21.0                           | 1.9                            | 19.1                                 |
| DINA H                           | 123.0                          | 0.05     |          | 6.2                            |                                | 6.2                            | 0.3                            | 5.9                                  |
| DINA I                           | 145.0                          | 0.03     |          | 4.4                            |                                | 4.4                            | 0.1                            | 4.3                                  |
| DINA J                           | 123.0                          | 0.05     |          | 6.2                            |                                | 6.2                            | 0.7                            | 5.5                                  |
| DINA K                           | 216.0                          | 0.05     |          | 10.8                           |                                | 10.8                           | 0.8                            | 10.0                                 |
| BASAL QUARTZ A                   | 607.0                          | 0.05     |          | 30.4                           |                                | 30.4                           | 17.4                           | 13.0                                 |
| BASAL QUARTZ C                   | 5 610.0                        | 0.07     |          | 393.0                          |                                | 393.0                          | 54.8                           | 338.2                                |
| ELLERSLIE A                      | 34.4                           | <0.03    |          | 1.1                            |                                | 1.1                            | 1.1                            |                                      |
| RAINIER 017-15W4                 |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                    | 261.0                          | 0.10     |          | 26.1                           |                                | 26.1                           | 16.3                           | 9.8                                  |
| GLAUCONITIC E                    | 639.0                          | 0.10     |          | 63.9                           | ERSD                           | 63.9                           | 34.7                           | 29.2                                 |
| BASAL QUARTZ A                   | 38.3                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| REAGAN 001-19W4                  |                                |          |          |                                |                                |                                |                                |                                      |
| RUNDLE A                         | 460.0                          | 0.18     |          | 82.8                           |                                | 82.8                           | 70.7                           | 12.1                                 |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 16    | 11.20                       | 0.190    | 0.40          | 0.89      | 45                             | 928               | 33   | 10 393              | 972.0                      | 1983         | 84 02                          |
| 32    | 1.75                        | 0.230    | 0.30          | 0.89      | 47                             | 923               | 33   | 10 383              | 972.6                      | 1983         | 85 12                          |
| 543   | 6.00                        | 0.070    | 0.15          | 0.88      | 50                             | 881               | 31   | 10 960              | 1 016.5                    | 1946         | 81 12 - GPP                    |
| 48    | 6.94                        | 0.110    | 0.25          | 0.88      | 49                             | 892               | 34   | 10 520              | 1 022.2                    | 1978         | 85 06                          |
| 16    | 8.70                        | 0.110    | 0.60          | 0.90      | 44                             | 945               | 31   | 10 440              | 1 025.0                    | 1982         | 83 01                          |
| 16    | 5.60                        | 0.120    | 0.34          | 0.88      | 49                             | 888               | 34   | 10 730              | 1 037.3                    | 1978         | 85 06                          |
| 16    | 2.30                        | 0.140    | 0.28          | 0.88      | 49                             | 881               | 34   | 10 494              | 1 021.2                    | 1978         | 85 06                          |
|       |                             |          |               |           |                                |                   | 38   | 11 070              | 1 017.1                    | 1944         | 67 01 - ABAND 69 09            |
| 16    | 4.78                        | 0.300    | 0.15          | 0.95      | 20                             | 934               | 30   | 5 750               | 787.9                      | 1977         | 83 12 - SUSP 80 05             |
| 1 048 | 4.14                        | 0.300    | 0.20          | 0.97      | 12                             | 965               | 27   | 5 900               | 779.5                      | 1969         | 81 12 - GPP                    |
| 1 233 | 12.71                       | 0.300    | 0.25          | 0.97      | 11                             | 979               | 24   | 5 450               | 744.3                      | 1973         | 78 11 - GPP                    |
| 112   | 4.40                        | 0.300    | 0.30          | 0.97      | 16                             | 921               | 26   | 5 790               | 779.7                      | 1973         | 83 12                          |
| 32    | 3.06                        | 0.253    | 0.42          | 0.92      | 23                             | 915               | 32   | 6 140               | 817.8                      | 1977         | 85 12                          |
| 16    | 6.55                        | 0.300    | 0.18          | 0.97      | 14                             | 972               | 27   | 6 170               | 822.7                      | 1978         | 78 12 - SUSP 78 10             |
| 16    | 2.47                        | 0.210    | 0.45          | 0.97      | 9                              | 952               | 34   | 8 400               | 1 040.9                    | 1977         | 78 10 - SUSP 83 12             |
| 16    | 2.10                        | 0.240    | 0.50          | 0.97      | 12                             | 969               | 30   | 5 968               | 915.5                      | 1977         | 80 11 - SUSP 80 03             |
| 16    | 2.30                        | 0.350    | 0.40          | 0.97      | 13                             | 960               | 30   | 6 140               | 801.3                      | 1979         | 80 12 - SUSP 82 05             |
| 16    | 1.60                        | 0.270    | 0.50          | 0.97      | 12                             | 980               | 27   | 7 179               | 788.2                      | 1980         | 81 04 - ABAND 81 09            |
| 448   | 8.63                        | 0.280    | 0.25          | 0.97      | 10                             | 980               | 26   | 5 385               | 753.1                      | 1977         | 85 12 - GPP                    |
| 16    | 2.60                        | 0.290    | 0.40          | 0.97      | 12                             | 990               | 27   | 6 131               | 782.7                      | 1980         | 81 07 - SUSP 81 06             |
| 16    | 3.70                        | 0.290    | 0.32          | 0.97      | 12                             | 990               | 27   | 6 141               | 788.4                      | 1980         | 81 07 - GPP                    |
| 16    | 6.00                        | 0.280    | 0.30          | 0.97      | 12                             | 980               | 23   | 5 367               | 740.5                      | 1981         | 81 10 - SUSP 81 08             |
| 16    | 3.20                        | 0.300    | 0.25          | 0.97      | 14                             | 980               | 29   | 5 900               | 820.4                      | 1981         | 83 12 - ABAND 83 11            |
| 16    | 2.00                        | 0.240    | 0.40          | 0.97      | 17                             | 960               | 26   | 6 180               | 933.8                      | 1981         | 81 10 - SUSP 82 01             |
| 16    | 3.80                        | 0.270    | 0.37          | 0.97      | 12                             | 980               | 26   | 5 500               | 741.8                      | 1981         | 82 07 - SUSP 85 05             |
| 16    | 1.70                        | 0.250    | 0.49          | 0.97      | 10                             | 988               | 29   | 5 681               | 772.7                      | 1982         | 82 09 - SUSP 84 10             |
| 16    | 1.00                        | 0.280    | 0.30          | 0.97      | 11                             | 940               | 30   | 5 369               | 708.4                      | 1979         | 82 06                          |
| 32    | 1.00                        | 0.270    | 0.35          | 0.96      | 16                             | 934               | 30   | 5 068               | 768.5                      | 1981         | 83 12                          |
| 64    | 1.95                        | 0.210    | 0.45          | 0.95      | 17                             | 945               | 18   | 5 635               | 780.0                      | 1978         | 85 09 - GPP                    |
| 16    | 4.30                        | 0.260    | 0.25          | 0.97      | 9                              | 957               | 34   | 2 707               | 915.5                      | 1983         | 84 02                          |
| 64    | 2.87                        | 0.230    | 0.48          | 0.97      | 11                             | 922               | 28   | 5 800               | 878.9                      | 1983         | 85 01                          |
| 64    | 2.50                        | 0.270    | 0.45          | 0.95      | 11                             | 889               | 31   | 2 400               | 789.8                      | 1984         | 85 01                          |
| 32    | 4.50                        | 0.240    | 0.46          | 0.97      | 11                             | 904               | 32   | 6 623               | 931.8                      | 1984         | 85 01                          |
| 32    | 3.20                        | 0.290    | 0.40          | 0.96      | 15                             | 911               | 27   | 6 880               | 873.4                      | 1984         | 85 03                          |
| 16    | 2.00                        | 0.280    | 0.45          | 0.97      |                                | 950               | 32   | 6 205               | 759.5                      | 1981         | 82 02                          |
| 64    | 3.00                        | 0.210    | 0.67          | 0.90      | 32                             | 892               | 33   | 5 700               | 970.2                      | 1984         | 85 03                          |
| 32    | 17.09                       | 0.300    | 0.12          | 0.97      | 25                             | 985               | 30   | 5 200               | 742.0                      | 1984         | 85 03                          |
| 32    | 8.60                        | 0.280    | 0.40          | 0.97      | 12                             | 994               | 27   | 5 360               | 775.5                      | 1983         | 84 03 - GPP                    |
| 32    | 5.20                        | 0.190    | 0.54          | 0.89      | 45                             | 898               | 35   | 7 600               | 802.3                      | 1984         | 85 08                          |
| 16    | 4.00                        | 0.240    | 0.45          | 0.97      | 12                             | 930               | 27   | 4 790               | 691.5                      | 1982         | 83 10                          |
| 16    | 8.00                        | 0.300    | 0.17          | 0.97      | 12                             | 976               | 28   | 5 344               | 699.0                      | 1983         | 85 12 - SUSP 84 04             |
| 16    | 7.00                        | 0.280    | 0.20          | 0.97      | 11                             | 988               | 26   | 3 500               | 840.5                      | 1982         | 85 12 - SUSP 84 10             |
| 16    | 0.70                        | 0.240    | 0.45          | 0.97      | 11                             | 931               | 26   | 5 895               | 828.1                      | 1983         | 84 01 - SUSP 84 08             |
| 16    | 1.00                        | 0.200    | 0.50          | 0.97      | 10                             | 988               | 31   | 5 026               | 792.0                      | 1983         | 83 09                          |
| 16    | 1.50                        | 0.250    | 0.48          | 0.97      | 12                             | 924               | 27   | 2 600               | 778.8                      | 1984         | 85 09                          |
| 64    | 2.30                        | 0.230    | 0.48          | 0.96      | 18                             | 865               | 32   | 7 000               | 1 028.1                    | 1978         | 79 01                          |
| 16    | 1.80                        | 0.210    | 0.40          | 0.94      | 27                             | 917               | 32   | 5 840               | 909.8                      | 1976         | 79 05                          |
| 16    | 3.40                        | 0.280    | 0.35          | 0.97      | 10                             | 980               | 27   | 6 099               | 795.3                      | 1980         | 84 12 - SUSP 82 02             |
| 16    | 3.50                        | 0.270    | 0.38          | 0.97      | 12                             | 970               | 29   | 4 400               | 789.8                      | 1980         | 81 01                          |
| 126   | 8.69                        | 0.300    | 0.14          | 0.92      | 34                             | 900               | 34   | 5 920               | 910.0                      | 1983         | 85 04                          |
| 506   | 5.98                        | 0.280    | 0.24          | 0.92      | 36                             | 918               | 28   | 5 591               | 823.2                      | 1983         | 85 12                          |
| 64    | 6.99                        | 0.250    | 0.41          | 0.97      | 11                             | 960               | 30   | 5 733               | 850.8                      | 1981         | 84 09 - SUSP 85 01             |
| 16    | 1.80                        | 0.240    | 0.40          | 0.90      | 41                             | 939               | 30   | 5 927               | 817.9                      | 1983         | 84 09                          |
| 16    | 6.30                        | 0.290    | 0.20          | 0.90      | 28                             | 922               | 31   | 5 500               | 913.7                      | 1984         | 85 01                          |
| 32    | 4.00                        | 0.200    | 0.50          | 0.96      | 25                             | 904               | 28   | 5 607               | 777.2                      | 1984         | 85 03                          |
| 16    | 3.90                        | 0.300    | 0.20          | 0.97      | 20                             | 976               | 30   | 4 500               | 867.1                      | 1984         | 85 03                          |
| 16    | 4.10                        | 0.280    | 0.30          | 0.96      | 23                             | 925               | 29   | 5 489               | 795.8                      | 1984         | 84 01                          |
| 16    | 6.00                        | 0.290    | 0.80          | 0.97      | 15                             | 945               | 30   | 2 500               | 813.7                      | 1984         | 85 05                          |
| 40    | 9.60                        | 0.250    | 0.33          | 0.94      | 25                             | 921               | 33   | 5 900               | 899.1                      | 1975         | 84 05                          |
| 192   | 13.46                       | 0.300    | 0.23          | 0.94      | 25                             | 921               | 33   | 7 288               | 892.6                      | 1977         | 84 12                          |
| 32    | 1.50                        | 0.130    | 0.40          | 0.92      | 34                             | 917               | 35   | 5 722               | 914.1                      | 1981         | 85 12 - ABAND 84 08            |
| 32    | 4.35                        | 0.260    | 0.18          | 0.88      | 41                             | 888               | 28   | 11 076              | 1 032.0                    | 1981         | 83 04                          |
| 104   | 3.49                        | 0.250    | 0.20          | 0.88      | 60                             | 867               | 31   | 10 980              | 1 028.2                    | 1981         | 84 06                          |
| 32    | 1.40                        | 0.160    | 0.40          | 0.89      | 40                             | 905               | 21   | 11 128              | 1 066.3                    | 1980         | 84 12 - SUSP 81 09             |
| 274   | 2.78                        | 0.110    | 0.27          | 0.75      | 127                            | 844               | 29   | 7 580               | 1 094.2                    | 1958         | 81 12 - GPP                    |

TABLE 2-4

| FIELD<br>POOL               | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-----------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                             | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                             |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                             | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| <b>RED COULEE 001-17W4</b>  |                                |          |          |                                |                                |                                |                                |                                      |
| CUT BANK B                  | 1 010.0                        | 0.05     |          | 50.5                           |                                | 50.5                           | 38.9                           | 11.6                                 |
| CUT BANK C                  | 99.0                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| RUNDLE A                    | 71.5                           | 0.15     |          | 10.8                           |                                | 10.8                           | 10.0                           | 0.8                                  |
| RUNDLE B                    | 36.5                           | 0.02     |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| <b>RETLAW 012-18W4</b>      |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE F                 | 110.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| MANNVILLE I                 | 1 270.0                        | 0.10     |          | 127.0                          |                                | 127.0                          | 115.2                          | 11.8                                 |
| MANNVILLE O                 | 124.0                          | <0.02    |          | 1.7                            |                                | 1.7                            | 1.7                            |                                      |
| MANNVILLE Q                 | 183.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| MANNVILLE R                 | 238.0                          | 0.05     |          | 11.9                           |                                | 11.9                           | 6.9                            | 5.0                                  |
| MANNVILLE V                 | 2 210.0                        | 0.10     |          | 221.0                          |                                | 221.0                          | 50.6                           | 170.4                                |
| MANNVILLE W                 | 371.0                          | <0.02    |          | 4.9                            |                                | 4.9                            | 4.9                            |                                      |
| MANNVILLE EE                | 247.0                          | 0.05     |          | 12.4                           |                                | 12.4                           | 4.2                            | 8.2                                  |
| MANNVILLE FF                | 178.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| MANNVILLE GG                | 92.7                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| MANNVILLE MM                | 90.4                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| MANNVILLE PP                | 174.0                          | 0.05     |          | 8.7                            |                                | 8.7                            | 6.5                            | 2.2                                  |
| MANNVILLE UU                | 44.8                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| MANNVILLE WW                | 244.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| MANNVILLE AAA               | 195.0                          | 0.01     |          | 2.0                            |                                | 2.0                            | 1.2                            | 0.8                                  |
| MANNVILLE BBB               | 1 300.0                        | 0.05     |          | 65.0                           |                                | 65.0                           | 12.0                           | 53.0                                 |
| MANNVILLE FFF               | 413.0                          | 0.10     |          | 41.3                           |                                | 41.3                           | 6.7                            | 34.6                                 |
| MANNVILLE JJJ               | 54.1                           | <0.03    |          | 1.5                            |                                | 1.5                            | 1.5                            |                                      |
| MANNVILLE KKK               | 105.0                          | <0.02    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| MANNVILLE ODD               | 97.3                           | 0.10     |          | 9.7                            |                                | 9.7                            | 5.7                            | 4.0                                  |
| MANNVILLE TTT               | 21.3                           | 0.10     |          | 2.1                            |                                | 2.1                            | 1.1                            | 1.0                                  |
| MANNVILLE B2B               | 44.1                           | 0.05     |          | 2.2                            |                                | 2.2                            |                                | 2.2                                  |
| MANNVILLE C2C               | 73.1                           | 0.10     |          | 7.3                            |                                | 7.3                            | 0.1                            | 7.2                                  |
| MANNVILLE F2F               | 76.0                           | 0.05     |          | 3.8                            |                                | 3.8                            |                                | 3.8                                  |
| <b>RIBSTONE 043-04W4</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| SPARKY A                    | 2 200.0                        | 0.05     |          | 110.0                          |                                | 110.0                          | 37.2                           | 72.8                                 |
| LLOYDMINSTER A              | 372.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| LLOYDMINSTER B              | 163.0                          | 0.05     |          | 8.2                            |                                | 8.2                            | 1.6                            | 6.6                                  |
| <b>RICHDALE 030-13W4</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE G           | 80.0                           | 0.15     |          | 12.0                           |                                | 12.0                           | 6.3                            | 5.7                                  |
| <b>RIVERCOURSE 047-01W4</b> |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY A                    | 245.0                          | <0.03    |          | 6.2                            |                                | 6.2                            | 6.2                            |                                      |
| COLONY B                    | 265.0                          | <0.06    |          | 2.9                            |                                | 2.9                            | 2.9                            |                                      |
| SPARKY A                    | 307.0                          | 0.10     |          | 30.7                           |                                | 30.7                           | 23.5                           | 7.2                                  |
| SPARKY B                    | 283.0                          | 0.02     |          | 5.7                            |                                | 5.7                            | 3.0                            | 2.7                                  |
| SPARKY C                    | 263.0                          | 0.01     |          | 2.6                            |                                | 2.6                            | 1.8                            | 0.8                                  |
| SPARKY D                    | 186.0                          | 0.05     |          | 9.3                            |                                | 9.3                            | 3.2                            | 6.1                                  |
| CUMMINGS A                  | 3 180.0                        | 0.03     |          | 95.4                           |                                | 95.4                           | 36.1                           | 59.3                                 |
| <b>RONALANE 013-12W4</b>    |                                |          |          |                                |                                |                                |                                |                                      |
| LOWER MANNVILLE A           | 149.0                          | <0.01    |          | 1.2                            |                                | 1.2                            | 1.2                            |                                      |
| LOWER MANNVILLE B           | 855.0                          | 0.05     |          | 42.7                           |                                | 42.7                           | 38.8                           | 3.9                                  |
| LOWER MANNVILLE E           | 314.0                          | 0.10     |          | 31.4                           |                                | 31.4                           | 2.4                            | 29.0                                 |
| SAWTOOTH C                  | 536.0                          | 0.15     |          | 80.4                           |                                | 80.4                           | 46.1                           | 34.3                                 |
| SAWTOOTH D                  | 71.5                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| <b>SEDGEWICK 042-12W4</b>   |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL MANNVILLE C           | 117.0                          | 0.10     |          | 11.7                           |                                | 11.7                           | 1.2                            | 10.5                                 |
| <b>SIBBALD 027-02W4</b>     |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE C           | 4 360.0                        |          |          | 256.0                          | 383.0                          | 639.0                          | 193.1                          | 445.9                                |
| TOTAL                       |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA                | 99.2                           | <0.01    |          | 0.2                            |                                | 0.2                            |                                |                                      |
| WATER FLOOD AREA            | 4 260.0                        | 0.06     | 0.09     | 256.0                          | 383.0                          | 639.0                          |                                |                                      |
| UPPER MANNVILLE D           | 40.1                           | 0.05     |          | 2.0                            |                                | 2.0                            |                                | 2.0                                  |
| LOWER MANNVILLE B           | 138.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| <b>SILER 057-07W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY A                    | 68.1                           | 0.01     |          | 0.7                            |                                | 0.7                            |                                | 0.7                                  |
| GRAND RAPIDS A              | 168.0                          | 0.05     |          | 8.4                            |                                | 8.4                            | 0.1                            | 8.3                                  |
| <b>SKIFF 005-14W4</b>       |                                |          |          |                                |                                |                                |                                |                                      |
| SAWTOOTH A                  | 890.0                          | 0.12     |          | 107.0                          |                                | 107.0                          | 53.2                           | 53.8                                 |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 229   | 4.18                        | 0.180    | 0.37          | 0.93      | 32                             | 904               | 27   | 6 030               | 838.2                      | 1960         | 85 12 - GPP                    |
| 16    | 6.71                        | 0.190    | 0.40          | 0.80      | 32                             | 904               | 30   | 6 000               | 910.7                      | 1966         | 68 04 - SUSP 67 10             |
| 21    | 5.61                        | 0.110    | 0.25          | 0.75      | 32                             | 910               | 28   | 6 270               | 948.2                      | 1961         | 75 12 - GPP                    |
| 16    | 3.66                        | 0.110    | 0.25          | 0.75      | 32                             | 904               | 28   | 6 210               | 879.7                      | 1967         | 77 04 - SUSP 68 12             |
| 65    | 1.22                        | 0.200    | 0.20          | 0.87      | 64                             | 921               | 32   | 11 510              | 1 075.0                    | 1965         | 65 05 - ABAND 66 01            |
| 454   | 2.13                        | 0.218    | 0.30          | 0.86      | 64                             | 921               | 39   | 11 580              | 1 086.1                    | 1964         | 77 12 - GPP                    |
| 65    | 1.77                        | 0.172    | 0.27          | 0.86      | 45                             | 946               | 37   | 11 810              | 1 106.7                    | 1971         | 72 02 - ABAND 72 10            |
| 65    | 2.74                        | 0.190    | 0.37          | 0.86      | 66                             | 921               | 41   | 11 893              | 1 065.6                    | 1971         | 74 04 - ABAND 74 03            |
| 96    | 2.25                        | 0.197    | 0.35          | 0.86      | 14                             | 921               | 38   | 11 550              | 1 091.1                    | 1974         | 79 12                          |
| 1 056 | 1.53                        | 0.200    | 0.23          | 0.89      | 57                             | 946               | 32   | 11 720              | 1 069.5                    | 1976         | 85 09                          |
| 96    | 3.53                        | 0.185    | 0.32          | 0.87      | 57                             | 921               | 32   | 12 030              | 1 134.9                    | 1976         | 85 12 - ABAND 85 06            |
| 128   | 2.25                        | 0.159    | 0.35          | 0.86      | 62                             | 910               | 34   | 11 690              | 1 089.0                    | 1978         | 83 09                          |
| 65    | 3.05                        | 0.160    | 0.35          | 0.87      | 59                             | 910               | 35   | 11 690              | 1 121.0                    | 1978         | 78 12 - ABAND 82 07            |
| 16    | 5.50                        | 0.180    | 0.35          | 0.90      | 44                             | 965               | 35   | 11 860              | 1 109.0                    | 1978         | 82 12 - SUSP 79 10             |
| 32    | 1.80                        | 0.220    | 0.18          | 0.87      | 50                             | 922               | 37   | 11 880              | 1 093.0                    | 1979         | 85 12 - SUSP 84 02             |
| 32    | 4.80                        | 0.200    | 0.35          | 0.87      | 89                             | 916               | 37   | 11 542              | 1 072.5                    | 1979         | 85 12                          |
| 16    | 2.78                        | 0.180    | 0.35          | 0.86      | 66                             | 959               | 35   | 10 337              | 1 104.1                    | 1980         | 83 12 - SUSP 81 06             |
| 32    | 5.50                        | 0.230    | 0.30          | 0.86      | 60                             | 921               | 38   | 11 785              | 1 108.4                    | 1977         | 85 12 - SUSP 81 03             |
| 16    | 17.97                       | 0.150    | 0.48          | 0.87      | 54                             | 917               | 32   | 11 146              | 1 075.7                    | 1980         | 83 12 - SUSP 83 11             |
| 423   | 2.93                        | 0.180    | 0.33          | 0.87      | 60                             | 915               | 37   | 11 808              | 1 053.3                    | 1981         | 84 10 - GPP                    |
| 64    | 8.13                        | 0.142    | 0.35          | 0.86      | 60                             | 891               | 35   | 11 310              | 1 075.9                    | 1981         | 82 05                          |
| 32    | 1.30                        | 0.240    | 0.37          | 0.86      | 60                             | 930               | 32   | 11 703              | 1 101.4                    | 1981         | 84 12 - SUSP 82 08             |
| 32    | 3.70                        | 0.188    | 0.45          | 0.86      | 68                             | 921               | 33   | 11 555              | 1 102.3                    | 1981         | 84 12 - SUSP 82 12             |
| 32    | 3.40                        | 0.160    | 0.35          | 0.86      | 62                             | 925               | 32   | 11 394              | 1 110.5                    | 1978         | 83 12                          |
| 16    | 1.14                        | 0.180    | 0.27          | 0.89      | 56                             | 911               | 36   | 11 880              | 1 097.7                    | 1982         | 83 03                          |
| 32    | 1.50                        | 0.180    | 0.40          | 0.85      | 64                             | 920               | 33   | 11 388              | 1 094.7                    | 1960         | 84 10 - SUSP 84 09             |
| 64    | 1.60                        | 0.120    | 0.30          | 0.85      | 73                             | 885               | 33   | 11 583              | 1 093.0                    | 1984         | 84 12 - SUSP 84 11             |
| 16    | 4.00                        | 0.200    | 0.34          | 0.90      | 44                             | 994               | 33   | 11 000              | 1 161.0                    | 1984         | 85 06                          |
| 96    | 14.10                       | 0.260    | 0.35          | 0.96      | 80                             | 915               | 29   | 4 500               | 689.5                      | 1971         | 80 12                          |
| 65    | 3.05                        | 0.280    | 0.30          | 0.96      |                                |                   | 29   | 4 860               | 661.4                      | 1972         | 77 12 - SUSP 72 10             |
| 32    | 2.40                        | 0.300    | 0.28          | 0.97      | 14                             | 939               | 26   | 3 046               | 642.5                      | 1975         | 83 02                          |
| 64    | 1.53                        | 0.170    | 0.46          | 0.89      | 44                             | 916               | 38   | 9 500               | 1 104.3                    | 1978         | 85 12                          |
| 49    | 1.92                        | 0.300    | 0.10          | 0.97      | 9                              | 946               | 24   |                     | 527.9                      | 1965         | 75 07 - SUSP 71 04             |
| 16    | 6.15                        | 0.340    | 0.20          | 0.99      |                                | 972               | 26   | 3 500               | 521.9                      | 1977         | 82 12 - SUSP 83 07             |
| 48    | 2.56                        | 0.300    | 0.16          | 0.99      | 5                              | 965               | 23   | 3 450               | 570.6                      | 1974         | 84 12 - GPP                    |
| 32    | 3.70                        | 0.290    | 0.17          | 0.99      | 9                              | 999               | 23   | 4 100               | 591.0                      | 1978         | 82 12 - GPP                    |
| 32    | 3.45                        | 0.290    | 0.17          | 0.99      | 9                              | 980               | 23   | 4 090               | 589.5                      | 1978         | 80 10 - GPP                    |
| 16    | 4.60                        | 0.300    | 0.15          | 0.99      | 9                              | 970               | 23   | 2 700               | 590.3                      | 1978         | 82 06 - GPP                    |
| 224   | 6.25                        | 0.290    | 0.20          | 0.98      | 9                              | 989               | 22   | 3 040               | 641.3                      | 1978         | 85 12 - GPP                    |
| 32    | 3.05                        | 0.270    | 0.35          | 0.86      | 66                             | 887               | 33   | 10 980              | 952.5                      | 1972         | 83 12 - SUSP 78 11             |
| 93    | 6.86                        | 0.230    | 0.32          | 0.86      | 21                             | 887               | 36   | 10 830              | 939.1                      | 1967         | 73 12                          |
| 32    | 9.40                        | 0.200    | 0.42          | 0.90      | 42                             | 925               | 31   | 8 000               | 920.2                      | 1984         | 85 04                          |
| 64    | 5.55                        | 0.270    | 0.35          | 0.86      | 67                             | 881               | 27   | 10 760              | 921.7                      | 1975         | 84 12                          |
| 16    | 3.96                        | 0.200    | 0.35          | 0.86      | 60                             | 887               | 36   | 10 480              | 925.1                      | 1977         | 83 12 - SUSP 78 08             |
| 32    | 2.00                        | 0.280    | 0.30          | 0.93      | 28                             | 920               | 30   | 4 047               | 916.0                      | 1984         | 84 11                          |
| 757   |                             |          |               |           | 21                             | 963               | 28   | 9 140               | 885.7                      | 1977         | 85 01                          |
| 48    | 1.90                        | 0.230    | 0.50          | 0.95      |                                |                   |      |                     |                            |              |                                |
| 709   | 3.24                        | 0.280    | 0.30          | 0.95      |                                |                   |      |                     |                            |              |                                |
| 16    | 2.00                        | 0.240    | 0.45          | 0.95      | 22                             | 962               | 28   | 7 736               | 868.0                      | 1980         | 80 08 - SUSP 80 05             |
| 16    | 5.00                        | 0.330    | 0.45          | 0.95      | 66                             | 866               | 64   | 8 980               | 862.5                      | 1980         | 80 09 - SUSP 80 08             |
| 16    | 2.20                        | 0.290    | 0.32          | 0.98      | 7                              | 989               | 25   | 4 800               | 496.9                      | 1981         | 82 10 - SUSP 83 03             |
| 16    | 4.60                        | 0.320    | 0.27          | 0.98      | 9                              | 990               | 22   | 2 500               | 493.0                      | 1980         | 82 10 - SUSP 84 11             |
| 320   | 2.42                        | 0.180    | 0.15          | 0.85      | 30                             | 941               | 33   | 9 190               | 922.1                      | 1964         | 84 09                          |

TABLE 2-4

| FIELD<br>POOL                 | 1                              | 2        | 3        | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                               | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                               |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                               | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| SKIFF 005-14W4<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| SAWTOOTH B                    | 183.0                          | 0.12     |          | 22.0                           |                                | 22.0                           | 2.1                            | 19.9                                 |
| SAWTOOTH C                    | 12.1                           | 0.10     |          | 1.2                            |                                | 1.2                            | 0.9                            | 0.3                                  |
| SAWTOOTH D                    | 25.6                           | 0.10     |          | 2.6                            |                                | 2.6                            | 0.6                            | 2.0                                  |
| ST. ANNE 054-05W5             |                                |          |          |                                |                                |                                |                                |                                      |
| BANFF A                       | 488.0                          | 0.05     |          | 24.4                           |                                | 24.4                           | 3.1                            | 21.3                                 |
| BANFF B                       | 193.0                          | 0.05     |          | 9.6                            |                                | 9.6                            | 1.4                            | 8.2                                  |
| BANFF C                       | 899.0                          | 0.20     |          | 180.0                          |                                | 180.0                          | 45.0                           | 135.0                                |
| BANFF D                       | 38.3                           | <0.20    |          | 5.1                            |                                | 5.1                            | 5.1                            |                                      |
| BANFF E                       | 107.0                          | 0.15     |          | 16.1                           |                                | 16.1                           | 3.3                            | 12.8                                 |
| BANFF G                       | 9.3                            | 0.20     |          | 1.9                            |                                | 1.9                            | 1.5                            | 0.4                                  |
| BANFF H                       | 319.0                          | 0.10     |          | 31.9                           |                                | 31.9                           | 0.2                            | 31.7                                 |
| STANMORE 029-11W4             |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE AA            | 398.0                          | 0.10     |          | 39.8                           |                                | 39.8                           | 14.1                           | 25.7                                 |
| STROME 043-16W4               |                                |          |          |                                |                                |                                |                                |                                      |
| ELLERSLIE A                   | 37.3                           | 0.10     |          | 3.7                            |                                | 3.7                            | 2.2                            | 1.5                                  |
| STRY 057-13W4                 |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE D             | 48.3                           | 0.05     |          | 2.4                            |                                | 2.4                            |                                | 2.4                                  |
| SUFFIELD 018-06W4             |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A             | 20 800.0                       | 0.01     |          | 208.0                          |                                | 208.0                          | 69.9                           | 138.1                                |
| UPPER MANNVILLE C             | 1 660.0                        | 0.10     |          | 166.0                          |                                | 166.0                          | 73.6                           | 92.4                                 |
| UPPER MANNVILLE D             | 769.0                          | <0.01    |          | 2.2                            |                                | 2.2                            | 2.2                            |                                      |
| UPPER MANNVILLE F             | 346.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| UPPER MANNVILLE H             | 1 320.0                        | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| UPPER MANNVILLE J             | 40 100.0                       | <0.01    |          | 300.0                          |                                | 300.0                          | 145.1                          | 154.9                                |
| UPPER MANNVILLE N             | 274.0                          | 0.05     |          | 13.7                           |                                | 13.7                           | 8.7                            | 5.0                                  |
| UPPER MANNVILLE O             | 137.0                          | 0.03     |          | 4.1                            |                                | 4.1                            | 0.3                            | 3.8                                  |
| UPPER MANNVILLE Q             | 169.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| UPPER MANNVILLE R             | 115.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| UPPER MANNVILLE S             | 114.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| UPPER MANNVILLE T             | 265.0                          | 0.05     |          | 13.3                           |                                | 13.3                           | 2.6                            | 10.7                                 |
| UPPER MANNVILLE U             | 273.0                          | 0.10     |          | 27.3                           |                                | 27.3                           | 12.2                           | 15.1                                 |
| UPPER MANNVILLE V             | 229.0                          | 0.05     |          | 11.5                           |                                | 11.5                           | 2.7                            | 8.8                                  |
| UPPER MANNVILLE W             | 66.6                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| UPPER MANNVILLE X             | 59.2                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| UPPER MANNVILLE Y             | 249.0                          | 0.02     |          | 5.0                            |                                | 5.0                            | 0.8                            | 4.2                                  |
| UPPER MANNVILLE Z             | 187.0                          | 0.03     |          | 5.6                            |                                | 5.6                            | 0.1                            | 5.5                                  |
| UPPER MANNVILLE EE            | 71.0                           | <0.01    |          | 0.5                            |                                | 0.5                            | 0.5                            |                                      |
| LOWER MANNVILLE A             | 396.0                          | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| LOWER MANNVILLE B             | 65.9                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LOWER MANNVILLE C             | 93.1                           | 0.07     |          | 6.5                            |                                | 6.5                            | 4.6                            | 1.9                                  |
| LOWER MANNVILLE D             | 77.1                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| LOWER MANNVILLE E             | 104.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LOWER MANNVILLE G             | 136.0                          | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| LOWER MANNVILLE H             | 67.0                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LOWER MANNVILLE I             | 88.1                           | 0.03     |          | 2.6                            |                                | 2.6                            |                                | 2.6                                  |
| LOWER MANNVILLE J             | 80.4                           | <0.02    |          | 1.2                            |                                | 1.2                            | 1.2                            |                                      |
| LOWER MANNVILLE K             | 128.0                          | 0.05     |          | 6.4                            |                                | 6.4                            | 2.2                            | 4.2                                  |
| LOWER MANNVILLE L             | 156.0                          | 0.05     |          | 7.8                            |                                | 7.8                            | 1.5                            | 6.2                                  |
| LOWER MANNVILLE M             | 100.0                          | 0.05     |          | 5.0                            |                                | 5.0                            | 2.3                            | 2.7                                  |
| LOWER MANNVILLE N             | 150.0                          | 0.06     |          | 9.0                            |                                | 9.0                            | 7.4                            | 1.6                                  |
| SUNNYNOOK 026-11W4            |                                |          |          |                                |                                |                                |                                |                                      |
| BASAL MANNVILLE F             | 120.0                          | <0.01    |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| SUPERBA 026-03W4              |                                |          |          |                                |                                |                                |                                |                                      |
| DETRITAL A                    | 213.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| SWIMMING 052-06W4             |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A             | 92.6                           | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| COLONY A                      | 89.8                           | 0.03     |          | 2.7                            |                                | 2.7                            | 1.3                            | 1.4                                  |
| COLONY D                      | 129.0                          | <0.04    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| SPARKY A                      | 98.8                           | 0.05     |          | 4.9                            |                                | 4.9                            | 0.3                            | 4.6                                  |
| SPARKY B                      | 64.3                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| TABER 009-17W4                |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE A                   | 1 140.0                        | 0.20     |          | 228.0                          |                                | 228.0                          | 206.7                          | 21.3                                 |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                 | 16   | 17                  | 18                         | 19           | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|--------------------|------|---------------------|----------------------------|--------------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GUR     | DENSITY            | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DIS.<br>YEAR | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg./m <sup>3</sup> | °C   | kPa                 | m                          |              |                                |
| 64    | 2.53                        | 0.180    | 0.26          | 0.85      | 30                             | 940                | 31   | 9 368               | 919.9                      | 1983         | 84 09                          |
| 16    | 1.00                        | 0.120    | 0.30          | 0.90      | 22                             | 964                | 31   | 9 320               | 919.0                      | 1981         | 84 09                          |
| 16    | 1.30                        | 0.180    | 0.24          | 0.90      | 41                             | 968                | 27   | 9 122               | 909.1                      | 1984         | 84 11                          |
| 32    | 9.80                        | 0.190    | 0.09          | 0.90      | 54                             | 919                | 43   | 13 332              | 1 456.6                    | 1978         | 83 11                          |
| 32    | 7.56                        | 0.160    | 0.44          | 0.89      | 45                             | 947                | 43   | 13 400              | 1 454.6                    | 1981         | 85 12                          |
| 161   | 6.48                        | 0.150    | 0.34          | 0.87      | 54                             | 954                | 43   | 13 393              | 1 442.1                    | 1981         | 85 06                          |
| 16    | 10.40                       | 0.050    | 0.50          | 0.92      | 45                             | 941                | 44   | 13 336              | 1 457.2                    | 1984         | 85 12 - SUSP 85 05             |
| 16    | 8.20                        | 0.140    | 0.33          | 0.87      | 160                            | 954                | 41   | 22 846              | 1 432.2                    | 1984         | 85 02                          |
| 16    | 1.50                        | 0.060    | 0.30          | 0.92      | 45                             | 940                | 44   | 10 087              | 1 466.0                    | 1984         | 85 12                          |
| 32    | 9.89                        | 0.178    | 0.37          | 0.90      | 50                             | 904                | 45   | 10 411              | 1 463.5                    | 1984         | 85 07                          |
| 128   | 1.90                        | 0.240    | 0.26          | 0.92      | 28                             | 939                | 35   | 9 055               | 1 035.1                    | 1973         | 82 11                          |
| 16    | 1.50                        | 0.210    | 0.22          | 0.95      | 20                             | 936                | 30   | 7 434               | 1 040.8                    | 1969         | 84 11                          |
| 16    | 1.60                        | 0.280    | 0.29          | 0.95      | 21                             | 957                | 22   | 5 086               | 537.8                      | 1970         | 83 04                          |
| 1 684 | 7.32                        | 0.250    | 0.25          | 0.90      | 35                             | 986                | 36   | 11 020              | 939.4                      | 1976         | 82 12                          |
| 112   | 9.72                        | 0.240    | 0.30          | 0.91      | 37                             | 952                | 32   | 10 690              | 975.7                      | 1976         | 85 12 - GPP                    |
| 65    | 7.68                        | 0.270    | 0.37          | 0.91      | 43                             | 940                | 32   | 9 890               | 964.4                      | 1977         | 79 07 - SUSP 78 03             |
| 16    | 11.89                       | 0.250    | 0.20          | 0.91      | 35                             | 937                | 28   | 11 120              | 938.2                      | 1977         | 82 12 - SUSP 77 05             |
| 65    | 12.19                       | 0.270    | 0.32          | 0.91      | 30                             | 972                | 31   | 10 050              | 909.8                      | 1977         | 78 03 - SUSP 78 01             |
| 2 190 | 10.60                       | 0.250    | 0.24          | 0.91      | 27                             | 979                | 28   | 10 410              | 923.6                      | 1977         | 84 07 - GPP                    |
| 16    | 9.30                        | 0.250    | 0.19          | 0.91      | 30                             | 971                | 33   | 9 970               | 954.3                      | 1978         | 83 12                          |
| 16    | 6.40                        | 0.210    | 0.30          | 0.91      | 30                             | 982                | 32   | 10 160              | 994.3                      | 1978         | 79 04                          |
| 16    | 6.50                        | 0.270    | 0.34          | 0.91      | 43                             | 983                | 30   | 10 400              | 926.8                      | 1979         | 80 02 - ABAND 80 08            |
| 16    | 5.50                        | 0.200    | 0.30          | 0.93      | 34                             | 957                | 31   | 9 230               | 994.0                      | 1980         | 83 12 - SUSP 81 04             |
| 16    | 5.20                        | 0.250    | 0.40          | 0.91      | 42                             | 982                | 32   | 10 000              | 894.0                      | 1980         | 80 07 - SUSP 85 04             |
| 16    | 10.00                       | 0.280    | 0.35          | 0.91      | 29                             | 982                | 26   | 10 943              | 927.0                      | 1980         | 80 08 - SUSP 84 07             |
| 16    | 10.00                       | 0.250    | 0.25          | 0.91      | 37                             | 951                | 21   | 10 569              | 967.5                      | 1980         | 85 12                          |
| 16    | 9.00                        | 0.250    | 0.30          | 0.91      | 20                             | 966                | 25   | 10 563              | 924.0                      | 1980         | 80 08                          |
| 16    | 2.60                        | 0.220    | 0.20          | 0.91      | 44                             | 951                | 30   | 10 233              | 960.3                      | 1980         | 83 12 - SUSP 83 12             |
| 16    | 2.30                        | 0.250    | 0.30          | 0.92      | 37                             | 958                | 32   | 10 406              | 952.2                      | 1980         | 83 12 - SUSP 80 09             |
| 32    | 7.30                        | 0.180    | 0.35          | 0.91      | 37                             | 925                | 29   | 10 188              | 962.2                      | 1981         | 85 12                          |
| 64    | 1.50                        | 0.330    | 0.35          | 0.91      | 35                             | 967                | 31   | 9 834               | 1 004.5                    | 1976         | 82 10                          |
| 16    | 4.00                        | 0.200    | 0.41          | 0.94      | 37                             | 959                | 35   | 10 721              | 986.2                      | 1977         | 84 08 - SUSP 83 04             |
| 65    | 7.01                        | 0.160    | 0.40          | 0.91      | 35                             | 952                | 35   | 9 590               | 1 001.9                    | 1976         | 76 11 - SUSP 77 06             |
| 16    | 2.13                        | 0.280    | 0.25          | 0.91      | 34                             | 952                | 33   | 10 180              | 982.0                      | 1977         | 83 12 - SUSP 78 08             |
| 32    | 2.46                        | 0.200    | 0.35          | 0.91      | 27                             | 972                | 34   | 9 080               | 951.6                      | 1977         | 84 12                          |
| 16    | 3.35                        | 0.240    | 0.35          | 0.91      | 32                             | 965                | 32   | 10 780              | 981.5                      | 1977         | 78 04 - ABAND 78 05            |
| 16    | 4.57                        | 0.220    | 0.30          | 0.91      | 32                             | 959                | 27   | 10 960              | 1 008.0                    | 1977         | 83 12 - ABAND 82 01            |
| 16    | 7.32                        | 0.210    | 0.40          | 0.91      | 47                             | 999                | 25   | 10 110              | 904.0                      | 1978         | 78 11 - SUSP 78 12             |
| 16    | 3.30                        | 0.210    | 0.35          | 0.93      | 30                             | 986                | 33   | 10 060              | 914.9                      | 1978         | 79 05 - SUSP 78 12             |
| 16    | 6.10                        | 0.190    | 0.50          | 0.95      | 9                              | 995                | 32   | 10 520              | 892.5                      | 1978         | 79 03                          |
| 16    | 3.40                        | 0.250    | 0.35          | 0.91      | 30                             | 969                | 35   | 10 560              | 1 006.0                    | 1978         | 79 04 - ABAND 80 04            |
| 16    | 5.70                        | 0.220    | 0.30          | 0.91      | 45                             | 943                | 45   | 10 600              | 967.0                      | 1980         | 80 09 - SUSP 84 07             |
| 16    | 6.30                        | 0.230    | 0.25          | 0.90      | 27                             | 978                | 31   | 11 166              | 967.3                      | 1979         | 81 03 - SUSP 80 10             |
| 32    | 2.08                        | 0.330    | 0.50          | 0.91      | 34                             | 951                | 36   | 10 565              | 997.7                      | 1982         | 83 12                          |
| 16    | 7.21                        | 0.210    | 0.32          | 0.91      | 44                             | 965                | 35   | 10 560              | 972.2                      | 1978         | 84 08 - GPP                    |
| 32    | 2.00                        | 0.250    | 0.20          | 0.94      | 27                             | 940                | 35   | 10 070              | 1 059.0                    | 1978         | 83 12 - SUSP 79 08             |
| 16    | 8.50                        | 0.300    | 0.45          | 0.95      | 18                             | 958                | 34   | 9 135               | 930.2                      | 1981         | 85 12 - SUSP 83 04             |
| 16    | 2.10                        | 0.320    | 0.13          | 0.99      | 10                             | 977                | 25   | 4 190               | 565.6                      | 1978         | 83 12 - ABAND 83 05            |
| 16    | 3.00                        | 0.270    | 0.30          | 0.99      | 10                             | 985                | 25   | 4 290               | 502.5                      | 1980         | 83 01 - GPP                    |
| 16    | 3.20                        | 0.300    | 0.15          | 0.99      | 7                              | 985                | 28   | 5 009               | 518.6                      | 1980         | 82 10 - ABAND 84 08            |
| 16    | 3.20                        | 0.300    | 0.35          | 0.99      | 7                              | 985                | 25   | 2 850               | 536.4                      | 1979         | 83 02 - GPP                    |
| 16    | 2.00                        | 0.290    | 0.30          | 0.99      | 7                              | 994                | 25   | 4 011               | 547.5                      | 1979         | 84 07 - ABAND 84 01            |
| 264   | 3.37                        | 0.210    | 0.35          | 0.94      | 23                             | 921                | 33   | 10 270              | 983.0                      | 1944         | 85 09 - GPP                    |

TABLE 2-4

| FIELD<br>POOL                 | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|-------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                               | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                               |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                               | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| TABER 009-17W4<br>(CONTINUED) |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE C                   | 734.0                          | 0.03     |          | 22.0                           |                                | 22.0                           | 18.5                           | 3.5                                  |
| MANNVILLE D TOTAL             | 10 300.0                       |          |          | 707.0                          | 1 730.0                        | 2 440.0                        | 1 758.5                        | 681.5                                |
| PRIMARY AREA                  | 674.0                          | 0.10     |          | 67.4                           |                                | 67.4                           |                                |                                      |
| WATER FLOOD AREA              | 9 600.0                        | <0.07    | 0.18     | 640.0                          | 1 730.0                        | 2 370.0                        |                                |                                      |
| MANNVILLE E                   | 25.3                           | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| MANNVILLE F                   | 834.0                          | 0.06     |          | 50.0                           |                                | 50.0                           | 40.0                           | 10.0                                 |
| MANNVILLE G                   | 529.0                          | 0.01     |          | 5.3                            |                                | 5.3                            | 4.3                            | 1.0                                  |
| MANNVILLE K                   | 406.0                          | 0.18     |          | 73.1                           |                                | 73.1                           | 35.9                           | 37.2                                 |
| GLAUCONITIC A                 | 84.2                           | 0.10     |          | 8.4                            |                                | 8.4                            | 1.0                            | 7.4                                  |
| TABER NORTH 011-16W4          |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A                 | 8 000.0                        | 0.35     |          | 2 800.0                        |                                | 2 800.0                        | 503.9                          | 2 296.1                              |
| GLAUCONITIC C                 | 2 590.0                        | 0.12     |          | 311.0                          |                                | 311.0                          | 121.6                          | 189.4                                |
| GLAUCONITIC D                 | 35.3                           | 0.10     |          | 3.5                            |                                | 3.5                            | 1.0                            | 2.5                                  |
| GLAUCONITIC E                 | 742.0                          | 0.05     |          | 37.1                           |                                | 37.1                           | 18.5                           | 18.6                                 |
| GLAUCONITIC F                 | 356.0                          | 0.15     |          | 53.4                           |                                | 53.4                           | 10.3                           | 43.1                                 |
| GLAUCONITIC G                 | 140.0                          | 0.10     |          | 14.0                           |                                | 14.0                           | 4.8                            | 9.2                                  |
| GLAUCONITIC H                 | 234.0                          | 0.05     |          | 11.7                           |                                | 11.7                           | 2.3                            | 9.4                                  |
| GLAUCONITIC I                 | 1 050.0                        | 0.05     |          | 52.5                           |                                | 52.5                           | 20.5                           | 32.0                                 |
| TABER A                       | 1 950.0                        | 0.12     |          | 235.0                          |                                | 235.0                          | 181.9                          | 53.1                                 |
| TABER B                       | 556.0                          | 0.10     |          | 55.6                           |                                | 55.6                           | 38.3                           | 17.3                                 |
| TABER C                       | 2 490.0                        | 0.08     |          | 200.0                          |                                | 200.0                          | 174.8                          | 25.2                                 |
| TABER D                       | 2 000.0                        | 0.15     |          | 300.0                          |                                | 300.0                          | 183.6                          | 116.4                                |
| TABER E                       | 344.0                          | 0.10     |          | 34.4                           |                                | 34.4                           | 22.1                           | 12.3                                 |
| TABER I                       | 115.0                          | 0.15     |          | 17.3                           |                                | 17.3                           | 7.6                            | 9.7                                  |
| TABER J                       | 229.0                          | 0.10     |          | 22.9                           |                                | 22.9                           | 0.2                            | 22.7                                 |
| TABER K                       | 547.0                          | 0.10     |          | 54.7                           |                                | 54.7                           | 39.3                           | 15.4                                 |
| TABER L                       | 98.8                           | 0.10     |          | 9.9                            |                                | 9.9                            | 0.7                            | 9.2                                  |
| TABER M                       | 158.0                          | 0.10     |          | 15.8                           |                                | 15.8                           | 0.1                            | 15.7                                 |
| TABER O                       | 487.0                          | 0.10     |          | 48.7                           |                                | 48.7                           | 22.2                           | 26.5                                 |
| TABER P                       | 325.0                          | 0.10     |          | 32.5                           |                                | 32.5                           | 3.6                            | 28.9                                 |
| SAWTOOTH A                    | 48.4                           | 0.10     |          | 4.8                            |                                | 4.8                            | 0.4                            | 4.4                                  |
| TABER SOUTH 007-16W4          |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE A TOTAL             | 9 270.0                        |          |          | 458.0                          | 912.0                          | 1 370.0                        | 920.6                          | 449.4                                |
| PRIMARY AREA                  | 149.0                          | 0.01     |          | 1.5                            |                                | 1.5                            |                                |                                      |
| WATER FLOOD AREA              | 9 120.0                        | 0.05     | 0.10     | 456.0                          | 912.0                          | 1 370.0                        |                                |                                      |
| MANNVILLE B TOTAL             | 7 160.0                        |          |          | 483.0                          | 1 470.0                        | 1 950.0                        | 1 855.3                        | 94.7                                 |
| PRIMARY AREA                  | 756.0                          | 0.04     |          | 30.2                           |                                | 30.2                           |                                |                                      |
| WATER FLOOD AREA              | 6 400.0                        | 0.07     | 0.23     | 453.0                          | 1 470.0                        | 1 920.0                        |                                |                                      |
| MANNVILLE C                   | 281.0                          | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| MANNVILLE D                   | 591.0                          | 0.05     |          | 29.6                           |                                | 29.6                           | 4.6                            | 25.0                                 |
| MANNVILLE E                   | 247.0                          | 0.03     |          | 7.4                            |                                | 7.4                            | 3.0                            | 4.4                                  |
| MANNVILLE F                   | 446.0                          | 0.05     |          | 22.3                           |                                | 22.3                           | 15.2                           | 7.1                                  |
| MANNVILLE G                   | 164.0                          | 0.05     |          | 8.2                            |                                | 8.2                            | 4.5                            | 3.7                                  |
| MANNVILLE H                   | 66.0                           | 0.10     |          | 6.6                            |                                | 6.6                            | 0.5                            | 6.1                                  |
| MANNVILLE I                   | 43.0                           | 0.10     |          | 4.3                            |                                | 4.3                            | 2.9                            | 1.4                                  |
| MANNVILLE J                   | 106.0                          | 0.05     |          | 5.3                            |                                | 5.3                            |                                | 5.3                                  |
| GLAUCONITIC A                 | 237.0                          | 0.05     |          | 11.9                           |                                | 11.9                           | 1.7                            | 10.2                                 |
| TABER SOUTH-EAST<br>008-15W4  |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE A                   | 1 460.0                        | 0.15     |          | 219.0                          |                                | 219.0                          | 170.9                          | 48.1                                 |
| MANNVILLE C                   | 173.0                          | 0.10     |          | 17.3                           |                                | 17.3                           | 13.6                           | 3.7                                  |
| MANNVILLE D                   | 680.0                          | 0.08     |          | 54.4                           |                                | 54.4                           | 38.5                           | 15.9                                 |
| MANNVILLE E                   | 152.0                          | 0.08     |          | 12.2                           |                                | 12.2                           | 9.7                            | 2.5                                  |
| TURIN 010-18W4                |                                |          |          |                                |                                |                                |                                |                                      |
| FISH SCALE B                  | 99.0                           | 0.03     |          | 3.0                            |                                | 3.0                            | 1.2                            | 1.8                                  |
| UPPER MANNVILLE C             | 2 060.0                        | 0.15     |          | 309.0                          |                                | 309.0                          | 173.5                          | 135.5                                |
| UPPER MANNVILLE J             | 832.0                          | 0.10     |          | 83.2                           |                                | 83.2                           | 17.8                           | 65.4                                 |
| LOWER MANNVILLE E             | 520.0                          | 0.15     |          | 78.0                           |                                | 78.0                           | 53.6                           | 24.4                                 |
| LOWER MANNVILLE L             | 1 670.0                        | 0.15     |          | 250.0                          |                                | 250.0                          | 173.5                          | 76.5                                 |
| LOWER MANNVILLE M             | 218.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| LOWER MANNVILLE N             | 82.2                           | <0.01    |          | 0.6                            |                                | 0.6                            | 0.6                            |                                      |
| LOWER MANNVILLE P             | 41.8                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| LOWER MANNVILLE T             | 109.0                          | 0.05     |          | 5.5                            |                                | 5.5                            | 1.9                            | 3.6                                  |
| LOWER MANNVILLE X             | 80.7                           | 0.10     |          | 8.1                            |                                | 8.1                            | 3.1                            | 5.0                                  |
| LOWER MANNVILLE BB            | 96.8                           | 0.10     |          | 9.7                            |                                | 9.7                            | 0.6                            | 9.1                                  |
| LOWER MANNVILLE NN            | 276.0                          | 0.10     |          | 27.6                           |                                | 27.6                           | 4.1                            | 23.5                                 |
| LOWER MANNVILLE TT            | 470.0                          | 0.15     |          | 70.0                           |                                | 70.0                           | 38.6                           | 31.4                                 |



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19   | 20                             |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|------|--------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DATE | DATE LAST REVIEWED AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |      |                                |
| 65    | 8.53                        | 0.218    | 0.35          | 0.94      | 20                             | 946               | 38   | 10 760              | 991.5                      | 1962 | 85 12 - GPP                    |
| 1 268 |                             |          |               |           | 16                             | 940               | 36   | 10 595              | 973.6                      | 1942 | 82 12                          |
| 128   | 4.81                        | 0.190    | 0.40          | 0.96      |                                |                   |      |                     |                            |      |                                |
| 1 140 | 6.20                        | 0.209    | 0.33          | 0.97      |                                |                   |      |                     |                            |      | - GPP                          |
| 16    | 1.83                        | 0.150    | 0.40          | 0.95      | 28                             | 940               | 16   | 10 470              | 964.7                      | 1974 | 78 11 - SUSP 78 07             |
| 120   | 5.42                        | 0.210    | 0.35          | 0.94      | 23                             | 921               | 33   | 10 780              | 983.3                      | 1944 | 85 09 - GPP                    |
| 142   | 3.10                        | 0.200    | 0.36          | 0.94      | 23                             | 946               | 33   | 10 395              | 995.5                      | 1944 | 83 12 - GPP                    |
| 100   | 3.32                        | 0.200    | 0.35          | 0.94      | 23                             | 921               | 33   | 10 422              | 993.0                      | 1944 | 84 12 - GPP                    |
| 64    | 1.00                        | 0.200    | 0.30          | 0.94      | 17                             | 947               | 29   | 11 151              | 977.5                      | 1983 | 84 05                          |
| 386   | 11.70                       | 0.240    | 0.21          | 0.93      | 58                             | 879               | 30   | 10 650              | 948.5                      | 1979 | 84 09                          |
| 344   | 6.08                        | 0.190    | 0.25          | 0.87      | 57                             | 894               | 30   | 11 382              | 979.1                      | 1980 | 85 06                          |
| 16    | 4.80                        | 0.100    | 0.50          | 0.92      | 36                             | 937               | 32   | 7 429               | 974.5                      | 1981 | 83 12                          |
| 64    | 7.02                        | 0.220    | 0.21          | 0.95      | 17                             | 899               | 29   | 10 765              | 951.0                      | 1978 | 84 11                          |
| 64    | 2.50                        | 0.260    | 0.10          | 0.95      | 17                             | 880               | 29   | 10 254              | 958.8                      | 1983 | 84 04                          |
| 32    | 3.00                        | 0.220    | 0.30          | 0.95      | 17                             | 904               | 29   | 10 773              | 957.8                      | 1983 | 84 04                          |
| 32    | 5.50                        | 0.200    | 0.30          | 0.95      | 17                             | 899               | 29   | 10 096              | 959.7                      | 1984 | 84 12                          |
| 32    | 18.00                       | 0.240    | 0.20          | 0.95      | 17                             | 899               | 29   | 10 730              | 952.0                      | 1978 | 84 12                          |
| 713   | 2.77                        | 0.210    | 0.50          | 0.94      | 32                             | 887               | 29   | 11 030              | 979.3                      | 1966 | 70 08 - GPP                    |
| 184   | 2.59                        | 0.200    | 0.38          | 0.94      | 16                             | 887               | 31   | 11 290              | 970.8                      | 1967 | 84 12 - GPP                    |
| 267   | 7.62                        | 0.200    | 0.35          | 0.94      | 22                             | 940               | 37   | 11 110              | 991.5                      | 1974 | 77 11 - GPP                    |
| 365   | 5.27                        | 0.170    | 0.35          | 0.94      | 21                             | 940               | 32   | 11 100              | 997.0                      | 1976 | 83 12 - GPP                    |
| 48    | 6.90                        | 0.160    | 0.31          | 0.94      | 27                             | 940               | 32   | 10 810              | 988.3                      | 1977 | 80 04 - GPP                    |
| 32    | 5.00                        | 0.150    | 0.49          | 0.94      | 25                             | 940               | 32   | 10 704              | 967.3                      | 1981 | 85 12 - GPP                    |
| 64    | 3.20                        | 0.170    | 0.30          | 0.94      | 20                             | 884               | 33   | 10 582              | 977.4                      | 1982 | 83 06 - SUSP 84 10             |
| 128   | 4.13                        | 0.190    | 0.42          | 0.94      | 15                             | 896               | 54   | 10 407              | 965.9                      | 1983 | 85 10                          |
| 32    | 2.50                        | 0.180    | 0.27          | 0.94      | 25                             | 924               | 35   | 10 613              | 981.9                      | 1983 | 83 11 - SUSP 84 07             |
| 64    | 3.60                        | 0.140    | 0.48          | 0.94      | 15                             | 893               | 54   | 10 758              | 981.2                      | 1983 | 84 05 - SUSP 84 07             |
| 112   | 6.08                        | 0.150    | 0.47          | 0.90      | 38                             | 934               | 70   | 10 045              | 969.0                      | 1983 | 85 10                          |
| 64    | 2.70                        | 0.230    | 0.13          | 0.94      | 15                             | 895               | 54   | 3 461               | 960.9                      | 1984 | 85 03                          |
| 16    | 2.20                        | 0.230    | 0.35          | 0.92      | 35                             | 895               | 29   | 8 400               | 992.6                      | 1980 | 85 04                          |
| 1 107 |                             |          |               |           | 7                              | 946               | 35   | 10 000              | 993.0                      | 1963 | 82 12                          |
| 16    | 8.00                        | 0.200    | 0.40          | 0.97      |                                |                   |      |                     |                            |      |                                |
| 1 091 | 7.01                        | 0.205    | 0.40          | 0.97      |                                |                   |      |                     |                            |      | - GPP                          |
| 518   |                             |          |               |           | 16                             | 940               | 41   | 9 890               | 984.8                      | 1963 | 81 12                          |
| 98    | 3.52                        | 0.259    | 0.10          | 0.94      |                                |                   |      |                     |                            |      |                                |
| 420   | 6.95                        | 0.259    | 0.10          | 0.94      |                                |                   |      |                     |                            |      | - GPP                          |
| 65    | 3.05                        | 0.200    | 0.25          | 0.95      | 16                             | 940               | 38   | 9 960               | 976.6                      | 1965 | 67 11 - ABAND 67 06            |
| 80    | 4.36                        | 0.220    | 0.18          | 0.94      | 46                             | 896               | 31   | 10 030              | 976.6                      | 1965 | 84 11                          |
| 32    | 6.25                        | 0.180    | 0.30          | 0.98      | 21                             | 930               | 32   | 10 260              | 994.3                      | 1978 | 85 12                          |
| 48    | 8.00                        | 0.190    | 0.37          | 0.97      | 6                              |                   | 32   | 9 650               | 1 004.1                    | 1979 | 80 09                          |
| 16    | 7.60                        | 0.189    | 0.27          | 0.98      | 21                             | 947               | 32   | 9 562               | 986.6                      | 1983 | 84 03                          |
| 32    | 3.00                        | 0.155    | 0.55          | 0.98      | 6                              | 920               | 32   | 9 775               | 978.4                      | 1984 | 84 06                          |
| 16    | 2.80                        | 0.170    | 0.40          | 0.94      | 27                             | 939               | 28   | 10 805              | 1 001.8                    | 1984 | 85 12                          |
| 16    | 5.50                        | 0.180    | 0.32          | 0.98      | 15                             | 930               | 34   | 4 500               | 997.3                      | 1984 | 85 05                          |
| 16    | 16.80                       | 0.160    | 0.42          | 0.95      | 17                             | 899               | 29   | 9 516               | 975.3                      | 1983 | 83 12                          |
| 380   | 3.41                        | 0.200    | 0.40          | 0.94      | 16                             | 915               | 29   | 10 070              | 972.6                      | 1963 | 85 12 - GPP                    |
| 32    | 6.10                        | 0.170    | 0.46          | 0.96      | 16                             | 934               | 36   | 9 780               | 949.2                      | 1973 | 78 10                          |
| 351   | 1.80                        | 0.200    | 0.44          | 0.96      | 10                             | 915               | 32   | 10 140              | 963.5                      | 1974 | 85 07                          |
| 64    | 2.98                        | 0.184    | 0.55          | 0.96      | 10                             | 915               | 32   | 10 140              | 969.3                      | 1977 | 85 07                          |
| 65    | 1.22                        | 0.220    | 0.40          | 0.95      | 20                             | 881               | 27   | 4 870               | 684.6                      | 1975 | 76 02 - SUSP 82 11             |
| 280   | 4.62                        | 0.240    | 0.21          | 0.84      | 72                             | 881               | 32   | 11 220              | 1 000.7                    | 1974 | 83 10                          |
| 200   | 5.40                        | 0.160    | 0.44          | 0.86      | 68                             | 831               | 31   | 10 806              | 981.1                      | 1982 | 85 12                          |
| 65    | 7.92                        | 0.190    | 0.40          | 0.89      | 65                             | 904               | 32   | 12 100              | 1 101.5                    | 1974 | 83 12                          |
| 429   | 3.70                        | 0.180    | 0.35          | 0.90      | 21                             | 940               | 38   | 11 176              | 993.8                      | 1974 | 85 09 - GPP                    |
| 65    | 3.96                        | 0.180    | 0.50          | 0.94      | 25                             | 940               | 32   | 10 480              | 1 025.7                    | 1974 | 82 12 - SUSP 74 11             |
| 32    | 2.44                        | 0.180    | 0.35          | 0.89      | 53                             | 921               | 32   | 11 135              | 1 008.6                    | 1975 | 78 07 - SUSP 78 02             |
| 32    | 2.50                        | 0.100    | 0.45          | 0.95      | 21                             | 930               | 33   | 5 320               | 1 037.0                    | 1977 | 83 12 - SUSP 79 09             |
| 32    | 3.30                        | 0.180    | 0.35          | 0.88      | 55                             | 917               | 33   | 10 780              | 1 066.1                    | 1979 | 85 05                          |
| 128   | 0.75                        | 0.130    | 0.28          | 0.90      | 38                             | 889               | 32   | 11 082              | 1 007.3                    | 1981 | 83 05                          |
| 16    | 3.70                        | 0.210    | 0.18          | 0.95      | 20                             | 956               | 33   | 10 924              | 1 000.2                    | 1981 | 81 07 - SUSP 85 06             |
| 64    | 2.75                        | 0.240    | 0.23          | 0.85      | 86                             | 17                | 35   | 11 107              | 1 092.3                    | 1984 | 85 05                          |
| 161   | 2.77                        | 0.180    | 0.35          | 0.90      | 21                             | 940               | 38   | 11 176              | 993.8                      | 1974 | 85 09 - GPP                    |

TABLE 2-4

| FIELD<br>POOL                  | 1                              | 3        |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|                                | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|                                |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|                                | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| VERGER 022-15W4                |                                |          |          |                                |                                |                                |                                |                                      |
| MANNVILLE A                    | 78.2                           | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| MANNVILLE D                    | 2 180.0                        | <0.01    |          | 4.7                            |                                | 4.7                            | 4.7                            |                                      |
| MANNVILLE F                    | 149.0                          | 0.10     |          | 14.9                           |                                | 14.9                           | 1.8                            | 13.1                                 |
| UPPER MANNVILLE C              | 4 130.0                        | 0.01     |          | 41.3                           |                                | 41.3                           | 15.5                           | 24.8                                 |
| VERMILION 050-05W4             |                                |          |          |                                |                                |                                |                                |                                      |
| SPARKY A                       | 10 500.0                       | <0.06    |          | 565.0                          |                                | 565.0                          | 495.4                          | 69.6                                 |
| VIKING-KINSELLA<br>047-11W4    |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE B              | 289.0                          | <0.01    |          | 0.3                            |                                | 0.3                            | 0.3                            |                                      |
| UPPER MANNVILLE C              | 77.0                           | 0.05     |          | 3.9                            |                                | 3.9                            | 3.5                            | 0.4                                  |
| UPPER MANNVILLE K              | 100.0                          | <0.01    |          | 0.1                            |                                | 0.1                            | 0.1                            |                                      |
| UPPER MANNVILLE R              | 764.0                          | <0.01    |          | 1.3                            |                                | 1.3                            | 1.3                            |                                      |
| UPPER MANNVILLE X              | 39.8                           | 0.02     |          | 0.8                            |                                | 0.8                            |                                | 0.8                                  |
| UPPER MANNVILLE CC             | 75.2                           | 0.05     |          | 3.8                            |                                | 3.8                            | 1.2                            | 2.6                                  |
| UPPER MANNVILLE QQ             | 146.0                          | 0.05     |          | 7.3                            |                                | 7.3                            | 0.3                            | 7.0                                  |
| UPPER MANNVILLE CCC            | 469.0                          | 0.05     |          | 23.5                           |                                | 23.5                           | 2.6                            | 20.9                                 |
| COLONY YY                      | 127.0                          | 0.05     |          | 6.4                            |                                | 6.4                            | 0.1                            | 6.3                                  |
| COLONY ZZ                      | 82.6                           | 0.05     |          | 4.1                            |                                | 4.1                            |                                | 4.1                                  |
| WAINWRIGHT B TOTAL             | 22 600.0                       |          |          | 904.0                          | 3 650.0                        | 4 550.0                        | 3 481.3                        | 1 068.7                              |
| PRIMARY AREA                   | 2 330.0                        | 0.04     |          | 93.2                           |                                | 93.2                           |                                |                                      |
| WATER FLOOD AREA               | 20 300.0                       | 0.04     | 0.18     | 811.0                          | 3 650.0                        | 4 460.0                        |                                |                                      |
| WAINWRIGHT D                   | 1 020.0                        | 0.05     |          | 51.0                           |                                | 51.0                           | 2.3                            | 48.7                                 |
| WAINWRIGHT E                   | 78.7                           | 0.01     |          | 0.8                            |                                | 0.8                            | 0.8                            |                                      |
| WAINWRIGHT H                   | 136.0                          | <0.01    |          | 0.7                            |                                | 0.7                            | 0.7                            |                                      |
| WAINWRIGHT I                   | 76.5                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| LOWER MANNVILLE K              | 92.5                           | <0.01    |          | 0.2                            |                                | 0.2                            | 0.2                            |                                      |
| WAINWRIGHT 045-06W4            |                                |          |          |                                |                                |                                |                                |                                      |
| VIKING, COLONY                 | 137.0                          | 0.07     |          | 9.6                            |                                | 9.6                            | 3.4                            | 6.2                                  |
| GRVW&EE                        |                                |          |          |                                |                                |                                |                                |                                      |
| COLONY P                       | 63.0                           | 0.07     |          | 4.4                            |                                | 4.4                            | 2.6                            | 1.8                                  |
| COLONY CC                      | 361.0                          | <0.06    |          | 20.3                           |                                | 20.3                           | 17.5                           | 2.8                                  |
| COLONY MM                      | 37.7                           | 0.05     |          | 1.9                            |                                | 1.9                            | 0.1                            | 1.8                                  |
| COLONY NN                      | 21.2                           | 0.05     |          | 1.1                            |                                | 1.1                            |                                | 1.1                                  |
| SPARKY B                       | 439.0                          | 0.03     |          | 13.2                           |                                | 13.2                           | 10.2                           | 3.0                                  |
| SPARKY C                       | 327.0                          | 0.03     |          | 9.8                            |                                | 9.8                            | 0.9                            | 8.9                                  |
| SPARKY F                       | 91.2                           | 0.05     |          | 4.6                            |                                | 4.6                            | 1.3                            | 3.3                                  |
| SPARKY G                       | 99.0                           | 0.05     |          | 5.0                            |                                | 5.0                            | 3.1                            | 1.9                                  |
| SPARKY H                       | 50.2                           | 0.05     |          | 2.5                            |                                | 2.5                            |                                | 2.5                                  |
| SPARKY J TOTAL                 | 248.0                          |          |          | 14.9                           | 12.8                           | 27.7                           | 22.4                           | 5.3                                  |
| PRIMARY AREA                   | 106.0                          | 0.06     |          | 6.4                            |                                | 6.4                            |                                |                                      |
| WATER FLOOD AREA               | 142.0                          | 0.06     | 0.09     | 8.5                            | 12.8                           | 21.3                           |                                |                                      |
| SPARKY K                       | 31.2                           | 0.05     |          | 1.6                            |                                | 1.6                            | 0.9                            | 0.7                                  |
| SPARKY L                       | 31.0                           | 0.05     |          | 1.6                            |                                | 1.6                            | 0.6                            | 1.0                                  |
| SPARKY M                       | 160.0                          | 0.03     |          | 4.8                            |                                | 4.8                            | 0.8                            | 4.0                                  |
| SPARKY N                       | 46.2                           | 0.03     |          | 1.4                            |                                | 1.4                            |                                | 1.4                                  |
| SPARKY O                       | 51.2                           | 0.03     |          | 1.5                            |                                | 1.5                            |                                | 1.5                                  |
| SPARKY P                       | 44.2                           | 0.03     |          | 1.3                            |                                | 1.3                            | 0.3                            | 1.0                                  |
| SPARKY R                       | 34.8                           | 0.03     |          | 1.0                            |                                | 1.0                            |                                | 1.0                                  |
| SPARKY U                       | 24.7                           | 0.05     |          | 1.2                            |                                | 1.2                            | 0.1                            | 1.1                                  |
| WAINWRIGHT B TOTAL             | 1 260.0                        |          |          | 63.2                           | 124.0                          | 187.0                          | 54.8                           | 132.2                                |
| PRIMARY AREA                   | 483.0                          | 0.05     |          | 24.2                           |                                | 24.2                           |                                |                                      |
| WATER FLOOD AREA               | 777.0                          | 0.05     | 0.16     | 39.0                           | 124.0                          | 163.0                          |                                |                                      |
| WAINWRIGHT C TOTAL             | 2 100.0                        |          |          | 126.0                          | 55.5                           | 182.0                          | 63.8                           | 118.2                                |
| PRIMARY AREA                   | 1 730.0                        | 0.06     |          | 104.0                          |                                | 104.0                          |                                |                                      |
| WATER FLOOD AREA               | 370.0                          | 0.06     | 0.15     | 22.2                           | 55.5                           | 77.7                           |                                |                                      |
| WAINWRIGHT &<br>SPARKY A TOTAL | 43 300.0                       |          |          | 2 710.0                        | 9 230.0                        | 11 900.0                       | 9 072.5                        | 2 827.5                              |
| PRIMARY AREA                   | 9 080.0                        | <0.06    |          | 544.0                          |                                | 544.0                          |                                |                                      |
| WATER FLOOD AREA               | 34 200.0                       | <0.07    | 0.27     | 2 170.0                        | 9 230.0                        | 11 400.0                       |                                |                                      |
| GENERAL PETROLEUM B            | 658.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.4                            |                                      |
| LLOYDMINSTER A                 | 107.0                          | 0.10     |          | 10.8                           |                                | 10.8                           | 8.3                            | 2.5                                  |
| LLOYDMINSTER B                 | 510.0                          | <0.01    |          | 4.0                            |                                | 4.0                            | 4.0                            |                                      |
| LLOYDMINSTER C                 | 88.9                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| NISKU A                        | 966.0                          | 0.05     |          | 48.3                           |                                | 48.3                           | 25.9                           | 22.4                                 |
| NISKU B                        | 165.0                          | 0.10     |          | 16.5                           |                                | 16.5                           | 5.6                            | 10.9                                 |
| NISKU C                        | 135.0                          | 0.10     |          | 13.5                           |                                | 13.5                           | 6.0                            | 7.5                                  |
| CAMROSE A                      | 366.0                          | 0.10     |          | 36.6                           |                                | 36.6                           | 3.8                            | 32.8                                 |
| CAMROSE B                      | 455.0                          | 0.10     |          | 45.5                           |                                | 45.5                           | 5.1                            | 40.4                                 |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19   | 20                            |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|------|-------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DATE | DATE LAST RE-DRILL AND REMARK |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |      |                               |
| 16    | 4.00                        | 0.200    | 0.35          | 0.94      | 19                             | 960               | 40   | 10 378              | 1 062.9                    | 1974 | 83 12 - ABAND 83 10           |
| 1 502 | 2.56                        | 0.180    | 0.65          | 0.90      | 41                             | 915               | 46   | 10 400              | 1 062.8                    | 1971 | 82 12 - SUSP 80 06            |
| 64    | 1.50                        | 0.260    | 0.33          | 0.89      | 45                             | 892               | 38   | 9 961               | 1 170.3                    | 1980 | 85 04                         |
| 1 079 | 3.66                        | 0.198    | 0.40          | 0.88      | 57                             | 881               | 36   | 10 130              | 983.6                      | 1971 | 74 12                         |
| 1 757 | 2.77                        | 0.280    | 0.20          | 0.96      | 11                             | 965               | 27   |                     | 560.8                      | 1939 | 80 12 - GPP                   |
| 65    | 2.13                        | 0.290    | 0.23          | 0.94      | 21                             | 927               | 34   | 4 830               | 717.5                      | 1975 | 82 12 - SUSP 75 06            |
| 16    | 3.35                        | 0.250    | 0.40          | 0.96      | 18                             | 946               | 28   | 4 680               | 688.2                      | 1975 | 82 12 - GPP                   |
| 65    | 0.91                        | 0.290    | 0.39          | 0.96      | 19                             | 952               | 29   | 5 360               | 765.7                      | 1975 | 77 03 - SUSP 76 12            |
| 64    | 7.70                        | 0.300    | 0.45          | 0.94      | 21                             | 927               | 31   | 6 510               | 752.2                      | 1972 | 77 12 - SUSP 79 12            |
| 16    | 1.50                        | 0.270    | 0.36          | 0.96      |                                | 970               | 29   | 5 680               | 744.2                      | 1978 | 79 04                         |
| 16    | 2.40                        | 0.300    | 0.32          | 0.96      | 10                             | 939               | 33   | 5 210               | 733.0                      | 1979 | 80 07 - SUSP 85 01            |
| 16    | 5.40                        | 0.280    | 0.37          | 0.96      | 17                             | 949               | 30   | 5 401               | 746.0                      | 1980 | 81 12                         |
| 192   | 1.87                        | 0.233    | 0.34          | 0.85      | 64                             | 864               | 33   | 4 927               | 765.3                      | 1982 | 84 01 - GPP                   |
| 64    | 1.30                        | 0.320    | 0.50          | 0.95      | 21                             | 946               | 28   | 4 817               | 652.7                      | 1981 | 85 02                         |
| 16    | 2.40                        | 0.320    | 0.30          | 0.96      | 17                             | 964               | 25   | 4 400               | 620.7                      | 1976 | 85 08                         |
| 3 317 |                             |          |               |           | 15                             | 927               | 27   | 4 840               | 653.2                      | 1973 | 85 06                         |
| 616   | 1.96                        | 0.300    | 0.33          | 0.96      |                                |                   |      |                     |                            |      | - GPP                         |
| 2 701 | 3.90                        | 0.300    | 0.33          | 0.96      |                                |                   |      |                     |                            |      |                               |
| 156   | 3.46                        | 0.290    | 0.32          | 0.96      | 17                             | 965               | 28   | 5 240               | 687.0                      | 1976 | 78 12                         |
| 16    | 2.44                        | 0.280    | 0.25          | 0.96      | 17                             | 965               | 27   | 5 050               | 672.7                      | 1976 | 83 12 - SUSP 81 03            |
| 32    | 2.21                        | 0.300    | 0.34          | 0.97      | 15                             | 958               | 27   | 4 980               | 688.1                      | 1978 | 83 12 - SUSP 80 12            |
| 16    | 2.20                        | 0.310    | 0.27          | 0.96      | 10                             | 956               | 34   | 4 970               | 740.9                      | 1978 | 82 12 - SUSP 80 02            |
| 16    | 2.70                        | 0.300    | 0.17          | 0.86      | 70                             | 996               | 31   | 5 610               | 843.1                      | 1977 | 83 12 - SUSP 83 12            |
| 32    | 1.95                        | 0.330    | 0.30          | 0.95      | 20                             | 946               | 30   | 5 507               | 605.3                      | 1975 | 83 04                         |
| 16    | 1.83                        | 0.310    | 0.27          | 0.95      | 15                             | 946               | 27   | 3 990               | 626.7                      | 1972 | 85 12 - GPP                   |
| 48    | 3.69                        | 0.300    | 0.30          | 0.97      | 16                             | 955               | 31   | 4 340               | 596.6                      | 1973 | 84 04 - GPP                   |
| 16    | 1.70                        | 0.280    | 0.50          | 0.99      | 12                             | 947               | 25   | 4 500               | 644.1                      | 1984 | 85 08                         |
| 16    | 1.00                        | 0.250    | 0.43          | 0.93      | 29                             | 980               | 28   | 7 500               | 591.9                      | 1982 | 85 09                         |
| 48    | 7.42                        | 0.250    | 0.47          | 0.93      | 14                             | 959               | 27   | 4 340               | 645.0                      | 1967 | 82 12 - GPP                   |
| 65    | 2.13                        | 0.330    | 0.25          | 0.96      | 16                             | 959               | 31   | 4 343               | 657.0                      | 1976 | 77 12                         |
| 32    | 2.30                        | 0.240    | 0.40          | 0.93      | 15                             | 921               | 27   | 3 850               | 639.7                      | 1976 | 79 11                         |
| 32    | 2.00                        | 0.260    | 0.38          | 0.95      | 16                             | 945               | 25   | 4 510               | 635.5                      | 1978 | 81 12 - GPP                   |
| 16    | 3.00                        | 0.220    | 0.50          | 0.95      | 23                             | 950               | 28   | 4 519               | 627.6                      | 1980 | 80 09 - SUSP 83 07            |
| 120   |                             |          |               |           | 14                             | 960               | 30   | 4 547               | 657.9                      | 1981 | 85 01                         |
| 56    | 1.20                        | 0.270    | 0.37          | 0.93      |                                |                   |      |                     |                            |      | - GPP                         |
| 64    | 1.40                        | 0.270    | 0.37          | 0.93      |                                |                   |      |                     |                            |      |                               |
| 8     | 2.50                        | 0.250    | 0.33          | 0.93      | 32                             | 904               | 30   | 3 000               | 615.8                      | 1981 | 82 04                         |
| 8     | 2.30                        | 0.270    | 0.35          | 0.96      | 16                             | 921               | 33   | 4 816               | 614.4                      | 1982 | 83 08                         |
| 32    | 3.00                        | 0.290    | 0.40          | 0.96      | 16                             | 920               | 33   | 4 298               | 714.5                      | 1982 | 83 12 - SUSP 85 03            |
| 16    | 2.70                        | 0.230    | 0.50          | 0.93      | 14                             | 960               | 25   | 4 324               | 648.2                      | 1983 | 84 09                         |
| 16    | 2.50                        | 0.250    | 0.45          | 0.93      | 14                             | 960               | 23   | 3 981               | 626.3                      | 1984 | 84 09 - SUSP 85 07            |
| 16    | 2.00                        | 0.270    | 0.45          | 0.93      | 14                             | 960               | 27   | 4 417               | 627.5                      | 1984 | 84 09                         |
| 16    | 1.70                        | 0.250    | 0.45          | 0.93      | 20                             | 960               | 25   | 3 252               | 630.3                      | 1984 | 84 11 - SUSP 85 07            |
| 16    | 1.20                        | 0.260    | 0.48          | 0.95      | 12                             | 960               | 23   | 3 905               | 652.0                      | 1984 | 85 03                         |
| 500   |                             |          |               |           | 14                             | 904               | 27   | 3 100               | 662.8                      | 1975 | 85 05                         |
| 96    | 3.29                        | 0.270    | 0.41          | 0.96      |                                |                   |      |                     |                            |      |                               |
| 404   | 1.35                        | 0.270    | 0.45          | 0.96      |                                |                   |      |                     |                            |      |                               |
| 363   |                             |          |               |           | 15                             | 921               | 27   | 4 770               | 690.2                      | 1926 | 85 07                         |
| 305   | 3.55                        | 0.260    | 0.34          | 0.93      |                                |                   |      |                     |                            |      |                               |
| 58    | 4.00                        | 0.260    | 0.34          | 0.93      |                                |                   |      |                     |                            |      |                               |
| 6 499 |                             |          |               |           | 15                             | 921               | 27   | 4 830               | 639.5                      | 1925 | 85 11                         |
| 1 518 | 3.15                        | 0.300    | 0.32          | 0.93      |                                |                   |      |                     |                            |      | - GPP                         |
| 4 981 | 3.24                        | 0.313    | 0.27          | 0.93      |                                |                   |      |                     |                            |      |                               |
| 65    | 5.18                        | 0.310    | 0.32          | 0.93      | 24                             | 904               | 23   | 4 450               | 638.6                      | 1975 | 76 07 - ABAND 76 02           |
| 8     | 7.92                        | 0.300    | 0.40          | 0.93      | 14                             | 921               | 28   | 4 310               | 654.4                      | 1968 | 69 02 - GPP                   |
| 64    | 3.39                        | 0.330    | 0.25          | 0.95      | 32                             | 959               | 28   | 4 480               | 679.7                      | 1974 | 83 12 - ABAND 83 03           |
| 16    | 3.00                        | 0.300    | 0.35          | 0.95      | 21                             | 952               | 28   | 6 400               | 663.8                      | 1981 | 82 05 - ABAND 81 12           |
| 96    | 7.88                        | 0.190    | 0.30          | 0.96      | 14                             | 957               | 24   | 4 265               | 642.6                      | 1982 | 85 04                         |
| 16    | 11.00                       | 0.180    | 0.35          | 0.80      | 31                             | 855               | 29   | 4 800               | 632.7                      | 1984 | 84 12                         |
| 16    | 8.30                        | 0.150    | 0.15          | 0.80      | 25                             | 855               | 29   | 4 323               | 640.9                      | 1984 | 85 12                         |
| 64    | 6.00                        | 0.170    | 0.30          | 0.80      | 31                             | 855               | 29   | 4 800               | 650.0                      | 1984 | 84 12                         |
| 64    | 5.70                        | 0.195    | 0.20          | 0.80      | 25                             | 855               | 29   | 4 323               | 654.2                      | 1984 | 85 03                         |

TABLE 2-4

| FIELD<br>POOL  | 1                              | 2 3      |          | 4                              | 5                              | 6                              | 7                              | 8                                    |
|--|--------------------------------|----------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|
|  | INITIAL<br>VOLUME<br>IN PLACE  | RECOVERY |          | INITIAL ESTABLISHED RESERVES   |                                |                                | CUMULATIVE<br>PRODUCTION       | REMAINING<br>ESTABLISHED<br>RESERVES |
|  |                                | PRIMARY  | ENHANCED | PRIMARY                        | ENHANCED                       | TOTAL                          |                                |                                      |
|  | 10 <sup>3</sup> m <sup>3</sup> | frac     | frac     | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup> | 10 <sup>3</sup> m <sup>3</sup>       |
| WARWICK 052-14W4   |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE J  | 726.0                          | 0.05     |          | 36.3                           |                                | 36.3                           | 23.6                           | 12.7                                 |
| UPPER MANNVILLE V  | 38.8                           | <0.01    |          | 0.1                            |                                | 0.1                            |                                | 0.1                                  |
| WILDMERE 048-05W4  |                                |          |          |                                |                                |                                |                                |                                      |
| UPPER MANNVILLE A  | 69.8                           | 0.05     |          | 3.5                            |                                | 3.5                            | 1.8                            | 1.7                                  |
| COLONY I   | 338.0                          | 0.05     |          | 16.9                           |                                | 16.9                           | 3.8                            | 13.1                                 |
| SPARKY B   | 2 720.0                        | 0.06     |          | 164.0                          |                                | 164.0                          | 143.3                          | 20.7                                 |
| SPARKY G   | 164.0                          | <0.02    |          | 2.2                            |                                | 2.2                            | 2.2                            |                                      |
| SPARKY H   | 200.0                          | 0.05     |          | 10.0                           |                                | 10.0                           | 3.6                            | 6.4                                  |
| SPARKY I   | 40.2                           | 0.03     |          | 1.2                            |                                | 1.2                            | 0.1                            | 1.1                                  |
| SPARKY J   | 340.0                          | 0.02     |          | 6.8                            |                                | 6.8                            | 1.2                            | 5.6                                  |
| SPARKY M   | 65.6                           | 0.05     |          | 3.3                            |                                | 3.3                            | 0.1                            | 3.2                                  |
| SPARKY N   | 5 710.0                        | 0.05     |          | 286.0                          |                                | 286.0                          | 22.8                           | 263.2                                |
| SPARKY D   | 733.0                          | 0.05     |          | 36.7                           |                                | 36.7                           | 2.1                            | 34.6                                 |
| SPARKY P   | 37.8                           | 0.05     |          | 1.9                            |                                | 1.9                            |                                | 1.9                                  |
| SPARKY Q   | 115.0                          | 0.03     |          | 3.5                            |                                | 3.5                            |                                | 3.5                                  |
| COLONY U   | 151.0                          | 0.05     |          | 7.6                            |                                | 7.6                            |                                | 7.6                                  |
| GENERAL PETROLEUM A  | 400.0                          | 0.05     |          | 20.0                           |                                | 20.0                           | 9.7                            | 10.3                                 |
| GENERAL PETROLEUM B  | 84.2                           | 0.03     |          | 2.5                            |                                | 2.5                            | 0.3                            | 2.2                                  |
| SPARKY R &   | 119.0                          | 0.03     |          | 3.6                            |                                | 3.6                            |                                | 3.6                                  |
| GENERAL PETROLEUM C  |                                |          |          |                                |                                |                                |                                |                                      |
| LLOYDMINSTER B   | 217.0                          | 0.05     |          | 10.9                           |                                | 10.9                           | 1.8                            | 9.1                                  |
| LLOYDMINSTER C   | 2 050.0                        | 0.03     |          | 61.5                           |                                | 61.5                           | 24.4                           | 37.1                                 |
| LLOYDMINSTER D   | 401.0                          | 0.02     |          | 8.0                            |                                | 8.0                            | 3.0                            | 5.0                                  |
| LLOYDMINSTER E   | 140.0                          | 0.05     |          | 7.0                            |                                | 7.0                            | 1.5                            | 5.5                                  |
| LLOYDMINSTER F   | 190.0                          | 0.05     |          | 9.5                            |                                | 9.5                            | 0.3                            | 9.2                                  |
| LLOYDMINSTER G   | 143.0                          | 0.05     |          | 7.2                            |                                | 7.2                            | 0.3                            | 6.9                                  |
| LLOYDMINSTER H   | 133.0                          | 0.05     |          | 6.7                            |                                | 6.7                            | 0.2                            | 6.5                                  |
| LLOYDMINSTER I   | 97.0                           | 0.05     |          | 4.9                            |                                | 4.9                            | 1.3                            | 3.6                                  |
| LLOYDMINSTER K   | 184.0                          | 0.03     |          | 5.5                            |                                | 5.5                            | 0.2                            | 5.3                                  |
| LLOYDMINSTER L   | 169.0                          | 0.05     |          | 8.5                            |                                | 8.5                            | 1.3                            | 7.2                                  |
| LLOYDMINSTER M   | 177.0                          | 0.05     |          | 8.9                            |                                | 8.9                            | 0.9                            | 8.0                                  |
| LLOYDMINSTER N   | 216.0                          | 0.05     |          | 10.8                           |                                | 10.8                           | 0.8                            | 10.0                                 |
| LLOYDMINSTER O   | 675.0                          | 0.05     |          | 33.8                           |                                | 33.8                           | 2.9                            | 30.9                                 |
| LLOYDMINSTER P   | 907.0                          | 0.03     |          | 27.2                           |                                | 27.2                           | 2.4                            | 24.8                                 |
| LLOYDMINSTER Q   | 242.0                          | 0.05     |          | 12.1                           |                                | 12.1                           | 1.1                            | 11.0                                 |
| LLOYDMINSTER R   | 100.0                          | 0.05     |          | 5.0                            |                                | 5.0                            | 0.3                            | 4.7                                  |
| LLOYDMINSTER V   | 1 600.0                        | 0.05     |          | 80.0                           |                                | 80.0                           | 2.3                            | 77.7                                 |
| LLOYDMINSTER A &   | 39 100.0                       |          |          | 1 950.0                        | 960.0                          | 2 910.0                        | 1 410.9                        | 1 499.1                              |
| SPARKY E TOTAL   |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA   | 27 100.0                       | 0.05     |          | 1 350.0                        |                                | 1 350.0                        |                                |                                      |
| WATER FLOOD AREA   | 12 000.0                       | 0.05     | 0.08     | 600.0                          | 960.0                          | 1 560.0                        |                                |                                      |
| WRENTHAM 006-16W4  |                                |          |          |                                |                                |                                |                                |                                      |
| GLAUCONITIC A  | 67.4                           | 0.07     |          | 4.7                            |                                | 4.7                            | 3.2                            | 1.5                                  |
| GLAUCONITIC B  | 229.0                          | 0.10     |          | 22.9                           |                                | 22.9                           | 6.2                            | 16.7                                 |
| LOWER MANNVILLE A  | 333.0                          | <0.01    |          | 0.4                            |                                | 0.4                            | 0.1                            | 0.3                                  |
| LOWER MANNVILLE B  | 1 260.0                        |          |          | 106.0                          | 118.0                          | 224.0                          | 194.0                          | 30.0                                 |
| TOTAL  |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA   | 280.0                          | 0.10     |          | 28.0                           |                                | 28.0                           |                                |                                      |
| WATER FLOOD  | 982.0                          | 0.08     | 0.12     | 78.0                           | 118.0                          | 196.0                          |                                |                                      |
| LOWER MANNVILLE C  | 1 650.0                        |          |          | 148.0                          | 59.7                           | 208.0                          | 187.6                          | 20.4                                 |
| TOTAL  |                                |          |          |                                |                                |                                |                                |                                      |
| PRIMARY AREA   | 800.0                          | 0.10     |          | 80.0                           |                                | 80.0                           |                                |                                      |
| WATER FLOOD AREA   | 853.0                          | 0.08     | 0.07     | 68.3                           | 59.7                           | 128.0                          |                                |                                      |
| LOWER MANNVILLE E  | 554.0                          | 0.07     |          | 38.8                           |                                | 38.8                           | 19.2                           | 19.6                                 |
| LOWER MANNVILLE F  | 500.0                          | 0.05     |          | 25.0                           |                                | 25.0                           | 11.7                           | 13.3                                 |
| LOWER MANNVILLE G  | 384.0                          | 0.05     |          | 19.2                           |                                | 19.2                           | 14.1                           | 5.1                                  |
| UNDEFINED AND<br>CONFIDENTIAL POOLS                        | 45 955.7                       |          |          | 2 627.4                        |                                | 2 627.4                        | 304.0                          | 2 335.7                              |
| TOTAL HEAVY CRUDE OIL                                      | 1 180 204.6                    |          |          | 82 288.7                       | 45 025.3                       | 127 297.5                      | 80 407.4                       | 46 902.4                             |
| PROVINCIAL TOTAL OF<br>LIGHT-MEDIUM AND<br>HEAVY CRUDE OIL | 7 529 555.1                    |          |          | 1 468 731.7                    | 653 539.5                      | 2 122 829.4                    | 1 474 498.5                    | 648 457.4                            |

HEAVY CRUDE OIL POOLS



| 9     | 10                          | 11       | 12            | 13        | 14                             | 15                | 16   | 17                  | 18                         | 19           | 20                           |
|-------|-----------------------------|----------|---------------|-----------|--------------------------------|-------------------|------|---------------------|----------------------------|--------------|------------------------------|
| AREA  | AVERAGE<br>PAY<br>THICKNESS | POROSITY | WATER<br>SATN | SHRINKAGE | INITIAL<br>SOLUTION<br>GOR     | DENSITY           | TEMP | INITIAL<br>PRESSURE | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE LAST REVIEW AND REMARKS |
| ha    | m                           | frac     | frac          | frac      | m <sup>3</sup> /m <sup>3</sup> | kg/m <sup>3</sup> | °C   | kPa                 | m                          |              |                              |
| 128   | 3.42                        | 0.275    | 0.33          | 0.90      | 22                             | 910               | 29   | 5 670               | 652.6                      | 1977         | 79 12                        |
| 16    | 1.52                        | 0.270    | 0.40          | 0.97      | 11                             | 927               | 29   | 5 210               | 584.9                      | 1977         | 79 12 - ABAND 78 10          |
| 16    | 1.83                        | 0.320    | 0.24          | 0.97      | 15                             | 952               | 21   | 4 140               | 595.0                      | 1975         | 85 12 - GPP                  |
| 48    | 2.95                        | 0.330    | 0.27          | 0.99      | 8                              | 977               | 22   | 2 930               | 574.3                      | 1980         | 83 06 - GPP                  |
| 433   | 2.38                        | 0.320    | 0.15          | 0.97      | 15                             | 959               | 32   | 6 900               | 607.7                      | 1965         | 75 12 - GPP                  |
| 64    | 1.75                        | 0.280    | 0.46          | 0.97      | 14                             | 939               | 26   | 5 874               | 600.0                      | 1979         | 81 02 - SUSP 82 03           |
| 73    | 1.60                        | 0.290    | 0.39          | 0.97      | 10                             | 953               | 25   | 3 216               | 549.7                      | 1979         | 85 12 - GPP                  |
| 16    | 1.20                        | 0.300    | 0.28          | 0.97      | 10                             |                   | 25   | 4 000               | 548.7                      | 1980         | 81 05                        |
| 32    | 5.62                        | 0.300    | 0.35          | 0.97      | 13                             | 950               | 25   | 3 792               | 590.2                      | 1979         | 82 10 - GPP                  |
| 16    | 2.20                        | 0.320    | 0.40          | 0.97      | 12                             | 984               | 25   | 5 874               | 586.9                      | 1981         | 82 05 - SUSP 84 05           |
| 487   | 5.30                        | 0.300    | 0.24          | 0.97      | 14                             | 966               | 23   | 4 560               | 562.5                      | 1982         | 84 09 - SUSP 85 07           |
| 112   | 3.06                        | 0.300    | 0.28          | 0.99      | 10                             | 973               | 28   | 4 840               | 657.8                      | 1983         | 84 08                        |
| 16    | 1.80                        | 0.260    | 0.48          | 0.97      | 13                             | 981               | 21   | 5 523               | 561.4                      | 1977         | 84 08                        |
| 16    | 3.20                        | 0.310    | 0.25          | 0.97      | 25                             | 980               | 25   | 4 512               | 633.4                      | 1984         | 84 08                        |
| 16    | 4.30                        | 0.320    | 0.30          | 0.98      | 15                             | 970               | 22   | 3 500               | 560.5                      | 1974         | 85 06                        |
| 64    | 2.98                        | 0.300    | 0.28          | 0.97      | 11                             | 935               | 29   | 4 400               | 625.1                      | 1977         | 85 12                        |
| 16    | 2.50                        | 0.310    | 0.30          | 0.97      | 11                             | 950               | 29   | 4 406               | 621.3                      | 1981         | 84 03                        |
| 32    | 2.00                        | 0.360    | 0.35          | 0.97      | 11                             | 982               | 29   | 4 400               | 622.3                      | 1981         | 84 12                        |
| 16    | 5.48                        | 0.310    | 0.19          | 0.99      | 9                              | 965               | 26   | 3 790               | 591.6                      | 1973         | 85 04                        |
| 208   | 4.52                        | 0.290    | 0.24          | 0.99      | 9                              | 993               | 27   | 4 740               | 646.5                      | 1978         | 84 12 - GPP                  |
| 32    | 4.92                        | 0.310    | 0.17          | 0.99      | 9                              | 997               | 25   | 4 570               | 686.1                      | 1978         | 84 12 - GPP                  |
| 16    | 4.20                        | 0.280    | 0.25          | 0.99      | 12                             | 997               | 24   | 4 555               | 648.9                      | 1980         | 82 04 - GPP                  |
| 16    | 5.00                        | 0.300    | 0.20          | 0.99      | 9                              | 990               | 25   | 4 570               | 672.5                      | 1981         | 82 05                        |
| 16    | 4.00                        | 0.300    | 0.25          | 0.99      | 9                              | 984               | 25   | 4 570               | 631.3                      | 1981         | 82 07 - SUSP 82 12           |
| 16    | 4.00                        | 0.270    | 0.22          | 0.99      | 9                              | 996               | 29   | 4 495               | 684.0                      | 1981         | 82 10 - SUSP 83 09           |
| 16    | 3.50                        | 0.250    | 0.30          | 0.99      | 9                              | 988               | 23   | 4 570               | 650.3                      | 1982         | 82 10 - GPP                  |
| 16    | 5.70                        | 0.280    | 0.25          | 0.96      | 38                             | 952               | 24   | 4 616               | 701.7                      | 1983         | 83 11 - SUSP 85 03           |
| 16    | 5.00                        | 0.290    | 0.25          | 0.97      | 16                             | 983               | 26   | 5 075               | 652.6                      | 1983         | 84 02                        |
| 16    | 5.50                        | 0.290    | 0.30          | 0.99      | 27                             | 979               | 25   | 4 760               | 643.5                      | 1982         | 83 04                        |
| 16    | 5.80                        | 0.300    | 0.20          | 0.97      | 16                             | 932               | 26   | 4 755               | 644.8                      | 1982         | 83 05                        |
| 48    | 6.36                        | 0.300    | 0.24          | 0.97      | 16                             | 986               | 26   | 4 765               | 650.6                      | 1983         | 85 10                        |
| 64    | 6.04                        | 0.300    | 0.21          | 0.99      | 16                             | 980               | 26   | 4 564               | 654.4                      | 1984         | 85 06                        |
| 16    | 6.50                        | 0.300    | 0.20          | 0.97      | 16                             | 986               | 26   | 4 560               | 646.6                      | 1983         | 84 11                        |
| 16    | 4.00                        | 0.270    | 0.40          | 0.97      | 16                             | 986               | 26   | 4 701               | 651.0                      | 1984         | 84 11                        |
| 112   | 6.25                        | 0.310    | 0.24          | 0.97      | 16                             | 969               | 26   | 4 564               | 669.5                      | 1985         | 85 12                        |
| 2 517 |                             |          |               |           |                                | 946               | 26   | 4 765               | 618.6                      | 1966         | 81 02 - GPP                  |
| 1 893 | 5.99                        | 0.320    | 0.23          | 0.97      |                                |                   |      |                     |                            |              |                              |
| 624   | 8.05                        | 0.320    | 0.23          | 0.97      |                                |                   |      |                     |                            |              |                              |
| 16    | 3.07                        | 0.200    | 0.27          | 0.94      | 22                             | 934               | 37   | 5 730               | 994.0                      | 1976         | 85 12                        |
| 48    | 4.16                        | 0.200    | 0.39          | 0.94      | 22                             | 930               | 34   | 9 603               | 979.2                      | 1982         | 84 09                        |
| 32    | 8.70                        | 0.190    | 0.33          | 0.94      | 10                             | 934               | 36   | 9 629               | 977.5                      | 1967         | 82 12 - SUSP 83 10           |
| 94    |                             |          |               |           | 10                             | 934               | 31   | 9 630               | 945.5                      | 1967         | 84 02                        |
| 32    | 6.06                        | 0.220    | 0.33          | 0.98      |                                |                   |      |                     |                            |              |                              |
| 62    | 10.90                       | 0.220    | 0.33          | 0.98      |                                |                   |      |                     |                            |              |                              |
| 316   |                             |          |               |           | 10                             | 934               | 31   | 9 550               | 941.2                      | 1967         | - GPP                        |
| 155   | 3.57                        | 0.220    | 0.33          | 0.98      |                                |                   |      |                     |                            |              | 83 12 - GPP                  |
| 161   | 3.66                        | 0.220    | 0.33          | 0.98      |                                |                   |      |                     |                            |              | 79 05 - GPP - MRL            |
| 96    | 5.07                        | 0.170    | 0.31          | 0.97      | 10                             | 937               | 30   | 9 050               | 952.6                      | 1979         | 85 12                        |
| 80    | 6.19                        | 0.180    | 0.41          | 0.95      | 10                             | 935               | 30   | 9 567               | 1 003.7                    | 1979         | 84 05                        |
| 80    | 4.85                        | 0.200    | 0.49          | 0.97      | 10                             | 935               | 30   | 2 165               | 970.4                      | 1985         | 85 09                        |











---

### 3 RESERVES OF CRUDE BITUMEN AND SYNTHETIC CRUDE OIL

---

#### 3.1 INITIAL IN-PLACE VOLUMES OF CRUDE BITUMEN

Alberta's crude bitumen reserves are contained in designated deposits within the oil sand areas of Athabasca, Cold Lake and Peace River. Oil Sand Area Orders (OSA Orders), issued in August 1984, for these areas provide an outline of the areal extent of crude bitumen occurrence and the specific geological zones which have been declared as oil sands deposits.

The geological character and initial estimate of the in-place volumes of Alberta's crude bitumen are presented in Board Reports<sup>1-5</sup> dating back to 1963.

Initial in-place volumes of crude bitumen in each deposit were estimated for this report using drillhole data available to the end of 1985. The crude bitumen within the Cretaceous sands was determined using a minimum saturation of 3 mass per cent crude bitumen, a minimum saturated zone thickness of 1.5 metres, and a "building block" approach to identify the in-place volume. Each deposit was divided into 2340-hectare (quarter-township) blocks and the initial in-place volume of crude bitumen in each block was determined using the average properties of the wells drilled in the block. Blocks not containing wells were assigned conservative values based on the lowest initial in-place volume of crude bitumen calculated for an adjacent block.

The crude bitumen in-place volumes in the carbonate occurrences were determined on the basis of isopach mapping rather than the building-block method. A minimum bitumen saturation of 30 per cent of pore volume and a porosity value of 5 per cent were used as cut-offs in this evaluation.

The total initial volume of crude bitumen in-place for the designated deposits at 31 December 1985 was estimated as 266.4 billion cubic metres. This represents a slight increase from last year's figure (265.6 billion m<sup>3</sup>), due primarily to additional drilling in the Cold Lake Clearwater Deposit. The initial in-place volumes for individual deposits are presented in Table 3-1.

#### 3.2 SURFACE-MINEABLE CRUDE BITUMEN AND SYNTHETIC CRUDE OIL RESERVES

The initial mineable volume in-place reserves of crude bitumen for the surface-mineable area was determined using isopach net pay maps of that part of the Athabasca Wabiskaw-McMurray deposit where total overburden and top reject thicknesses generally do not exceed 75 metres.

---

<sup>1</sup> Oil and Gas Conservation Board, 1963. A Description and Reserve Estimate of the Oil Sands of Alberta. Calgary, Alberta

<sup>2</sup> Energy Resources Conservation Board, 1974. Geology and Proved In-Place Reserves of the Cold Lake Oil Sands Deposits. ERCB Report 73-L. Calgary, Alberta

<sup>3</sup> \_\_\_\_\_, 1974. Geology and Proved In-Place Reserves of the Peace River Oil Sands Deposit. Calgary, Alberta

<sup>4</sup> \_\_\_\_\_, 1976. Geology and Proved In-Place Reserves of the Wabasca Oil Sands Deposits. ERCB Report 76-A. Calgary, Alberta

<sup>5</sup> Strom, N., R. B. Dunbar, and F. J. Mink, 1980. Bitumen Resources of Alberta; Recovery and Conversion to Synthetic Oil Supply Paper No. 80-31-08, 31st Annual Technical Meeting, Petroleum Society of CIM.

Potentially mineable areas were identified by economic stripping-ratio criteria, a minimum saturation of 5 mass per cent crude bitumen, and a minimum saturated zone thickness of 1.5 metres. The economic stripping ratio criteria are fully explained in Appendix III of ERCB Report 79-H<sup>6</sup>.

Within the potentially mineable areas, the initial mineable volume in-place of crude bitumen was established to be 11.9 billion cubic metres. After allowing for surface facilities (plant sites, tailings ponds, discard dumps), environmental protection corridors along major rivers, isolated mineable areas, and assuming a combined mining/extraction recovery factor of 0.78, the resulting initial established mineable reserve of crude bitumen is estimated to be 5.2 billion cubic metres as shown in Figure 3-1. Technological improvements, better placement of surface facilities in future projects, and improved price/cost economics could increase this estimate.

The yield of synthetic crude oil through upgrading of crude bitumen is dependent upon the type of upgrading technology employed, the use of any residual materials produced, and the degree to which off-site energy sources are employed. Having regard for developments now approved and under construction which provide for improvements to currently employed technology, the Board has adopted a synthetic crude oil yield factor of 0.80. This is an upward revision from the previously employed yield factor of 0.75. Using the 0.80 yield factor, initial established reserves of synthetic crude oil for the surface-mineable areas are 4.2 billion cubic metres.

While the surface-mineable established reserve value is consistent with the existing terminology and definitions for established reserves utilized in this report, the Board is aware of the marked difference between methodology for interpreting and assigning established reserves compared with what may be defined as "reserves under active development". For the mineable reserves, this would include only the approved Suncor and Syncrude projects. The estimated mineable crude bitumen reserves under active development are shown below:

| <b>Development</b> | <b>Initial Volume<br/>in-Place</b> | <b>Initial<br/>Established</b> | <b>Cumulative<br/>Production</b> | <b>Remaining<br/>Established</b> | <b>Area</b> |
|--------------------|------------------------------------|--------------------------------|----------------------------------|----------------------------------|-------------|
|                    | 10 <sup>6</sup> m <sup>3</sup>     |                                |                                  |                                  | ha          |
| Suncor             | 192                                | 140                            | 58                               | 82                               | 1800        |
| Syncrude           | <u>252</u>                         | <u>248</u>                     | <u>48</u>                        | <u>200</u>                       | <u>2850</u> |
| Total              | 444                                | 388                            | 106                              | 282                              | 4650        |

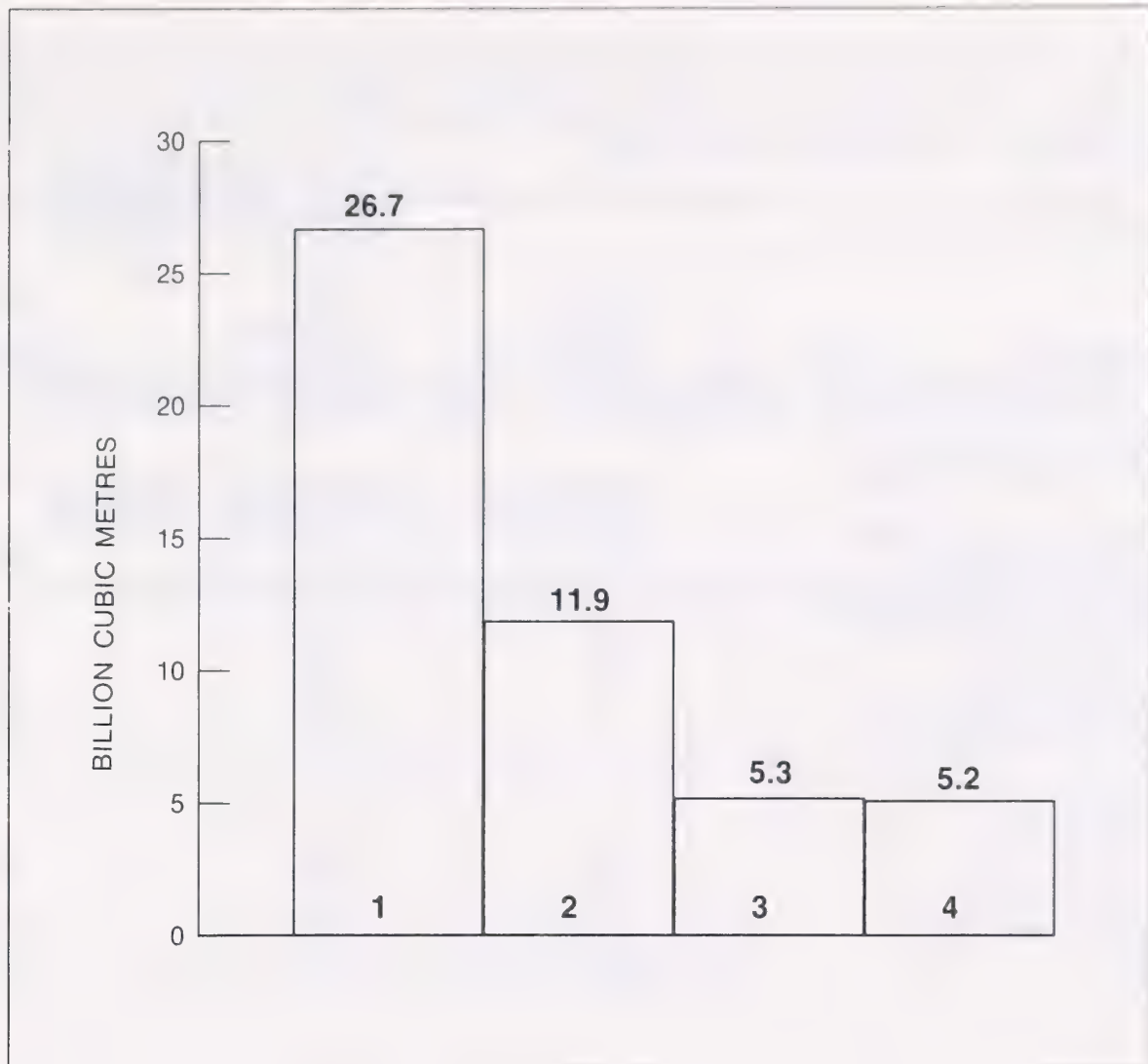
### 3.3 IN SITU CRUDE BITUMEN RESERVES

The Board has assigned established reserves for the commercial in situ projects and a combined total for all experimental field-demonstration projects. Also, established reserves have been estimated for the primary production areas. A recovery factor for these primary areas has been assigned assuming one Legal Subdivision drilling density and full development of lands. If the lands are not developed then the total recoverable reserves would be less than designated.

The initial primary established reserve for the Lindbergh Area was estimated to be 10.8 million cubic metres based on a 2 per cent average primary recovery factor for the Cummings sands, and a 0.1 per cent average primary recovery factor for other Mannville sands. The initial established reserve for the Lindbergh thermal production areas was estimated to be 3.9 million cubic metres based on a 15 per cent average recovery factor for the Mannville Sands. For lands under thermal commercial development established reserves were assigned for the individual projects based on historical and current production.

<sup>6</sup> Energy Resources Conservation Board, 1979. Alsands Fort McMurray Project. ERCB Report 79-H. Calgary, Alberta





1. INITIAL VOLUME IN-PLACE. Gross volume of crude bitumen established to exist within the surface mineable boundary.
2. INITIAL MINEABLE VOLUME IN-PLACE. Volume of crude bitumen calculated using minimum saturation and thickness criteria, and based upon the application of economic stripping - ratio criteria within the surface mineable boundary.
3. INITIAL ESTABLISHED MINEABLE RESERVE. Volume of crude bitumen established within category 2, but excluding mining, extraction, and isolated ore losses, and areas unavailable due to placement of mine surface facilities and environmental buffer zones.
4. REMAINING ESTABLISHED MINEABLE RESERVE. Volume of crude bitumen established within category 3, less cumulative production.

**FIGURE 3-1 CRUDE BITUMEN RESERVE CATEGORIES WITHIN THE SURFACE-MINEABLE BOUNDARY**

For the drilled wells in the experimental schemes, an established reserve figure of 13.8 million cubic metres is considered to be appropriate based on current well productivity, cumulative production, and the projected production to the expiry date of each experimental scheme. Information from a total of 1132 wells was used in determining the experimental scheme reserves figure.

The Board's estimate of the established in situ crude bitumen reserves under active development at 31 December 1985 is as follows:

| <b>Development</b>   | <b>Initial<br/>Volume<br/>in-Place</b> | <b>Initial<br/>Established<br/>Reserves</b> | <b>Number<br/>of<br/>Wells</b> |
|--|--|---|--------------------------------|
|  | 10 <sup>6</sup> m <sup>3</sup>         |   |                                |
| Peace River Commercial Project<br>Thermal-Bluesky/Bullhead | 14                                     | 5.6   | 216                            |
| Cold Lake Commercial Project<br>Thermal-Clearwater         | 212                                    | 38.1  | 880                            |
| Lindbergh Commercial Projects                              |  |   |                                |
| Primary-Cummings 1 & 2                                     | 191                                    | 3.8   | 367                            |
| Other Mannville  | 195                                    | 0.2   | 35                             |
| Thermal-Cummings 1 & 2                                     | 19                                     | 2.9   | 172                            |
| Thermal-Other Mannville                                    | 6                                      | 1.0   | 49                             |
| Lindbergh  |  |   |                                |
| Other Primary  |  |   |                                |
| Cummings 1 & 2   | 308                                    | 6.2   | 346                            |
| Other Mannville  | 626                                    | 0.6   | 98                             |
| Experimental Schemes                                       | 163                                    | 13.8  | 1132                           |
| Total  | 1734                                   | 72.2  | 3295                           |





## **Reserves of Crude Bitumen and Basic Data**

---

TABLE 3-1

| OIL SANDS AREA<br>OIL SANDS DEPOSIT<br>OVERBURDEN DEPTH (m) OR ZONE | 1                              | 2                  | 3                           | 4                     |                     | 5        | 6             | 7                    |
|---|--------------------------------|--------------------|-----------------------------|-----------------------|---------------------|----------|---------------|----------------------|
|   | INITIAL<br>VOLUME<br>IN PLACE  | AREA               | AVERAGE<br>PAY<br>THICKNESS | BITUMEN<br>SATURATION |                     | POROSITY | WATER<br>SATN |                      |
|   | 10 <sup>6</sup> m <sup>3</sup> | 10 <sup>3</sup> ha | m                           | mass<br>frac          | pore<br>vol<br>frac | frac     | frac          |                      |
| <b>ATHABASCA</b>  |                                |                    |                             |                       |                     |          |               |                      |
| WABISKAW-MCMURRAY   |                                |                    |                             |                       |                     |          |               |                      |
| 0 - 20  | 6 750                          | 93                 | 34                          | 0.101                 |                     | 0.30     | 0.28          |                      |
| 20 - 40   | 10 640                         | 135                | 38                          | 0.098                 |                     | 0.29     | 0.26          |                      |
| 40 - 80   | 6 820                          | 95                 | 35                          | 0.094                 |                     | 0.29     | 0.31          |                      |
| 80 - 120  | 2 470                          | 28                 | 41                          | 0.097                 |                     | 0.30     | 0.30          |                      |
| 80 - 750+   | 117 800                        | 4 329              | 19                          | 0.069                 |                     | 0.28     | 0.38          |                      |
| SUBTOTAL  | 144 480                        |                    |                             |                       |                     |          |               | WITHIN MINEABLE AREA |
| UPPER GRAND RAPIDS  |                                |                    |                             |                       |                     |          |               |                      |
| 150 - 450+  | 4 140                          | 334                | 9                           | 0.062                 |                     | 0.30     | 0.45          |                      |
| SUBTOTAL  | 4 140                          |                    |                             |                       |                     |          |               |                      |
| MIDDLE GRAND RAPIDS   |                                |                    |                             |                       |                     |          |               |                      |
| 150 - 450+  | 1 410                          | 182                | 5                           | 0.077                 |                     | 0.30     | 0.32          |                      |
| SUBTOTAL  | 1 410                          |                    |                             |                       |                     |          |               |                      |
| LOWER GRAND RAPIDS  |                                |                    |                             |                       |                     |          |               |                      |
| 150 - 450+  | 1 220                          | 173                | 6                           | 0.051                 |                     | 0.30     | 0.55          |                      |
| SUBTOTAL  | 1 220                          |                    |                             |                       |                     |          |               |                      |
| GROSMONT  |                                |                    |                             |                       |                     |          |               |                      |
| A   | 9 840                          | 939                | 10                          |                       | 0.60                | 0.14     | 0.40          |                      |
| B   | 5 380                          | 976                | 5                           |                       | 0.69                | 0.15     | 0.31          |                      |
| C   | 15 390                         | 1 189              | 10                          |                       | 0.75                | 0.16     | 0.25          |                      |
| D   | 19 890                         | 1 063              | 16                          |                       | 0.67                | 0.20     | 0.33          |                      |
| SUBTOTAL  | 50 500                         |                    |                             |                       |                     |          |               |                      |
| NISKU   |                                |                    |                             |                       |                     |          |               |                      |
| 200 - 800+  | 10 330                         | 499                | 8                           |                       | 0.55                | 0.21     | 0.37          |                      |
| SUBTOTAL  | 10 330                         |                    |                             |                       |                     |          |               |                      |
| <b>COLD LAKE</b>  |                                |                    |                             |                       |                     |          |               |                      |
| UPPER GRAND RAPIDS  |                                |                    |                             |                       |                     |          |               |                      |
| 300 - 600   | 7 400                          | 816                | 6                           | 0.065                 |                     | 0.30     | 0.42          |                      |
| SUBTOTAL  | 7 400                          |                    |                             |                       |                     |          |               |                      |
| LOWER GRAND RAPIDS  |                                |                    |                             |                       |                     |          |               |                      |
| COLD LAKE AREA  | 11 647                         | 741                | 12                          | 0.069                 |                     | 0.31     | 0.40          |                      |
| LINDBERGH AREA  |                                |                    |                             |                       |                     |          |               |                      |
| SPARKY  | 45                             | 7                  | 4                           | 0.074                 |                     | 0.31     | 0.30          |                      |
| LOWER GRAND RAPIDS 2  | 15                             | 3                  | 3                           | 0.099                 |                     | 0.31     | 0.31          |                      |
| LOWER GRAND RAPIDS 3  | 40                             | 4                  | 5                           | 0.085                 |                     | 0.31     | 0.26          |                      |
| LOWER GRAND RAPIDS 4  | 180                            | 22                 | 4                           | 0.092                 |                     | 0.33     | 0.24          |                      |
| LLDYDMINSTER  | 275                            | 10                 | 12                          | 0.102                 |                     | 0.33     | 0.21          |                      |
| SUBTOTAL  | 12 202                         |                    |                             |                       |                     |          |               |                      |
| CLEARWATER  |                                |                    |                             |                       |                     |          |               |                      |
| 300 - 600   | 11 330                         | 561                | 12                          | 0.078                 | 0.56                | 0.30     | 0.44          |                      |
| SUBTOTAL  | 11 330                         |                    |                             |                       |                     |          |               |                      |
| WABISKAW-MCMURRAY   |                                |                    |                             |                       |                     |          |               |                      |
| COLD LAKE AREA  | 3 165                          | 582                | 6                           | 0.057                 |                     | 0.25     | 0.49          |                      |
| LINDBERGH AREA  |                                |                    |                             |                       |                     |          |               |                      |
| CUMMINGS 1  | 283                            | 32                 | 5                           | 0.089                 |                     | 0.30     | 0.27          |                      |
| CUMMINGS 2  | 235                            | 25                 | 5                           | 0.089                 |                     | 0.31     | 0.24          |                      |
| MCMURRAY  | 272                            | 27                 | 5                           | 0.093                 |                     | 0.31     | 0.19          |                      |
| SUBTOTAL  | 3 955                          |                    |                             |                       |                     |          |               |                      |
| <b>PEACE RIVER</b>  |                                |                    |                             |                       |                     |          |               |                      |
| BLUESKY-GETHING   |                                |                    |                             |                       |                     |          |               |                      |
| 300 - 700   | 500                            | 187                | 4                           | 0.061                 | 0.57                | 0.24     | 0.48          |                      |
| SUBTOTAL  | 500                            |                    |                             |                       |                     |          |               |                      |
| BLUESKY-BULLHEAD  |                                |                    |                             |                       |                     |          |               |                      |
| 300 - 750+  | 11 500                         | 800                | 14                          | 0.045                 | 0.42                | 0.24     | 0.58          |                      |
| SUBTOTAL  | 11 500                         |                    |                             |                       |                     |          |               |                      |



TABLE 3-1

| OIL SANDS AREA<br>OIL SANDS DEPOSIT<br>OVERBURDEN DEPTH (m) OR ZONE | 1                              | 2                  | 3                           | 4                     |                     | 5       | 6             | 7 |
|---|--------------------------------|--------------------|-----------------------------|-----------------------|---------------------|---------|---------------|---|
|   | INITIAL<br>VOLUME<br>IN PLACE  | AREA               | AVERAGE<br>FAT<br>THICKNESS | BITUMEN<br>SATURATION |                     | PERCENT | WATER<br>SATN |   |
|   | 10 <sup>6</sup> m <sup>3</sup> | 10 <sup>3</sup> ha | m                           | mass<br>frac          | pore<br>vol<br>frac | frac    | frac          |   |
| <b>PEACE RIVER (CONTINUED)</b>                                      |                                |                    |                             |                       |                     |         |               |   |
| UPPER DEBOLT  |                                |                    |                             |                       |                     |         |               |   |
| 500 - 800   | 1 580                          | 60                 | 13                          |                       | 0.61                | 0.19    | 0.39          |   |
| SUBTOTAL  | 1 580                          |                    |                             |                       |                     |         |               |   |
| LOWER DEBOLT  |                                |                    |                             |                       |                     |         |               |   |
| 500 - 800   | 4 310                          | 96                 | 32                          |                       | 0.70                | 0.18    | 0.30          |   |
| SUBTOTAL  | 4 310                          |                    |                             |                       |                     |         |               |   |
| SHUNDA  |                                |                    |                             |                       |                     |         |               |   |
| 500 - 800   | 1 540                          | 72                 | 14                          |                       | 0.54                | 0.20    | 0.46          |   |
| SUBTOTAL  | 1 540                          |                    |                             |                       |                     |         |               |   |
| TOTAL   | 266 397                        |                    |                             |                       |                     |         |               |   |











## 4 RESERVES OF GAS

### 4.1 PROVINCIAL SUMMARY

The Board estimates the remaining established reserves of marketable gas in Alberta at 31 December 1985 to be 1768 billion cubic metres, having a thermal (heating value) energy content of 68.8 exajoules. This represents a net decrease of 30 billion cubic metres since 31 December 1984. The reserves include ethane and natural gas liquids subsequently recovered at reprocessing plants as discussed in Section 4.7. The changes in reserves during 1985 are shown below:

| Remaining Established Reserves of Marketable Gas |                                |        |                                 |                    |
|--|--------------------------------|--------|---------------------------------|--------------------|
|  | Actual Heating<br>Value Basis  | Change | 37.4 MJ/m <sup>3</sup><br>Basis | Energy<br>Content  |
|  | 10 <sup>9</sup> m <sup>3</sup> |        |                                 | 10 <sup>18</sup> J |
| At 31 December 1984                              |                                |        |                                 |                    |
| Associated and solution                          | 286.0                          |        |                                 |                    |
| Non-associated                                   | 1 512.4                        |        |                                 |                    |
| Total  | 1 798.4                        |        | 1 872.2                         | 70.0               |
| Additions during 1985                            | 42.6                           |        | 43.4                            | 1.6                |
| Less production during 1985                      | 72.8                           |        | 75.7                            | 2.8                |
| At 31 December 1985                              |                                |        |                                 |                    |
| Associated and solution                          | 290.4                          | + 4.4  | 302.1                           | 11.9               |
| Non-associated                                   | 1 477.9                        | -34.5  | 1 537.8                         | 56.9               |
| Total  | 1 768.3 <sup>a</sup>           | -30.1  | 1 839.9                         | 68.8               |
|  | (62 762) <sup>b</sup>          |        | (65 251) <sup>c</sup>           |                    |

At year-end 1985 gas reserves were assigned to 19 064 pools in the province. Of these, 6044 had produced or are being produced and had remaining established reserves of 1231 billion cubic metres after cumulative production of 1237 billion. The 13 020 pools not on production had aggregate initial established reserves of marketable gas of 537 billion cubic metres, including 46 billion cubic metres of associated initial marketable gas reserves (gas-cap gas) classified as deferred.

The Board has been concerned for some time about the accuracy of reserves estimates for small single well gas pools. At year-end 1985 about 21 per cent of the initial established reserves of marketable gas in the province were attributed to single well gas pools. Preliminary indications are that estimates for many of these reserves may be overstated because the area assignment and/or recovery factor may be optimistic. In 1986 the Board will commence a study of small pools with a view to adjusting, if necessary, the reserves estimates for these pools. As an interim step, for year-end 1985, the Board has arbitrarily lowered the well area assignment to 150 hectares from 200 hectares for 1632 single-well pools with a 1985 review date.

<sup>a</sup> Discrepancies are due to rounding.

<sup>b</sup> Imperial equivalent in billions of cubic feet at 14.65 pounds per square inch absolute and 60 degrees Fahrenheit.

<sup>c</sup> Imperial equivalent in billions of cubic feet of 1000 British thermal units per cubic foot of gas.

## 4.2 RESERVES OF GAS CONTAINING HYDROGEN SULPHIDE

The gas in 1192 of the gas pools in the province is sour (ie. contains at least some hydrogen sulphide). The distribution of established reserves of sweet and sour gas is shown below:

| Type of Gas | Raw Gas                        |                        | Marketable Gas               |                           |                                |
|-------------|--------------------------------|------------------------|------------------------------|---------------------------|--------------------------------|
|             | Initial Volume in Place        | Initial Producible     | Initial Established Reserves | Net Cumulative Production | Remaining Established Reserves |
|             | 10 <sup>6</sup> m <sup>3</sup> |                        |                              |                           |                                |
| Sweet       | 3 287 011                      | 2 281 177              | 2 028 339                    | 735 138                   | 1 293 201                      |
| Sour        | 1 773 531                      | 1 324 300              | 976 594                      | 501 540                   | 475 054                        |
| Total       | 5 060 542                      | 3 605 477              | 3 004 933                    | 1 236 678                 | 1 768 255                      |
|             | (179 618) <sub>a</sub>         | (127 972) <sub>a</sub> | (106 656) <sub>a</sub>       | (43 894) <sub>a</sub>     | (62 762) <sub>a</sub>          |

The distribution of marketed gas production by hydrogen sulphide content in raw gas is shown below:

| H <sub>2</sub> S Content in Raw Gas | 1985 Cumulative Marketed Production |                     | 1985 Annual Marketed Production |                     |
|-------------------------------------|-------------------------------------|---------------------|---------------------------------|---------------------|
|                                     | 10 <sup>6</sup> m <sup>3</sup>      | Percentage of total | 10 <sup>6</sup> m <sup>3</sup>  | Percentage of total |
| Mole Percentage                     |                                     |                     |                                 |                     |
| 0.00                                | 735 138                             | 59.45               | 51 255                          | 70.45               |
| 0.00-1.99                           | 184 038                             | 14.88               | 6 421                           | 8.82                |
| 2.00-9.99                           | 169 825                             | 13.73               | 7 916                           | 10.88               |
| 10.00-19.99                         | 89 818                              | 7.26                | 4 359                           | 5.99                |
| 20.00-29.99                         | 12 497                              | 1.01                | 806                             | 1.11                |
| 30.00 or more                       | 45 362                              | 3.67                | 1 999                           | 2.75                |
| Total                               | 1 236 678                           | 100.00              | 72 756                          | 100.00              |

Sulphur reserves are discussed in Chapter 7.

## 4.3 DISTRIBUTION OF RESERVES OF GAS RESERVES BY POOL SIZE

The distribution of initial established reserves of marketable gas among pools of different size ranges is shown below:

| Reserve Range                  | Pools  |                     | Initial Established Reserves   |                     |
|--------------------------------|--------|---------------------|--------------------------------|---------------------|
|                                | number | Percentage of total | 10 <sup>6</sup> m <sup>3</sup> | Percentage of total |
| 10 <sup>6</sup> m <sup>3</sup> |        |                     |                                |                     |
| 3000 or more                   | 147    | 0.8                 | 1 621 498                      | 54.0                |
| 1500-2999                      | 83     | 0.4                 | 174 372                        | 5.8                 |
| 300-1499                       | 812    | 4.3                 | 485 193                        | 16.1                |
| 1-299                          | 18 022 | 94.5                | 723 870                        | 24.1                |
| Total                          | 19 064 | 100.0               | 3 004 933                      | 100.0               |
|                                |        |                     | (106 656) <sub>a</sub>         |                     |

<sup>a</sup> Imperial equivalent in billions of cubic feet at 14.65 pounds per square inch absolute and 60 degrees Fahrenheit.



#### 4.4 GROWTH OF MARKETABLE GAS RESERVES

The addition of some 43 billion cubic metres to the initial established reserves during 1985 included some 12 billion resulting from new discoveries made during the year. The remaining 31 billion were attributed to development drilling and the reassessment of previously discovered reserves and reserves discovered before 1985 but first recognized by the Board in 1985. The quantity of reserves added in 1985 was similar to 1983 and 1984 but less than half of the annual average for the last decade. The reserve growth rate is more fully discussed in Chapter 8.

The pools for which initial recoverable marketable gas reserves were revised by more than 1000 million cubic metres in 1985 are listed in Table 4-1. The revisions occurred primarily as a result of detailed reviews of the reserves of these pools by the operators and Board staff.

#### 4.5 VIKING TREND RESERVES

Over the past few years the Board has scheduled gas reserves reviews for a number of Viking pools and requested submissions from industry through General Bulletins to assist in the review. A total of 63 pools in 26 fields have been completed to the present time. As shown in Table 4-1 the Provost Viking CAK was the largest pool reviewed in 1985, with reserves being increased by 8066 million cubic metres. Overall for Viking pool reviews, total upward revision of reserves have been approximately the same amount as total downward revisions.

#### 4.6 RESERVES OF POOLS SUBJECT TO GAS CYCLING

Reserves of certain gas pools in which gas has been or is being cycled are tabulated on both an energy and a volumetric basis. Table 4-2 lists the initial energy in place, the recovery factor and surface loss factor (both on an energy basis), and the initial marketable energy for each gas-cycling pool. The table also lists raw- and marketable-gas heating values used to convert from a volumetric to an energy basis. The volumetric reserves of these pools are included in Table 4-5, but with recovery factors and surface loss factors deleted.

#### 4.7 RESERVES OF ETHANE AND NATURAL GAS LIQUIDS INCLUDED IN GAS RESERVES

The remaining established reserves of natural gas discussed in Section 4.1 are determined at the field gate. A portion of the ethane and natural gas liquids they contain will be extracted downstream at reprocessing plants. If these quantities which will be extracted are deducted from the remaining established reserves of marketable gas, the gas reserves and the thermal energy content would be reduced from 1768 billion to 1688 billion cubic metres and from 68.8 to 62.7 exajoules, respectively, as shown at the end of Table 4-5.

Reserves of ethane and natural gas liquids are discussed in more detail in Chapters 5 and 6, respectively.

#### 4.8 DISCUSSION OF RESERVES TABLE 4-5

The established reserves of marketable gas have been estimated having regard for information presented by the industry in submissions and studies by the Board staff.

The established reserves of gas are listed in Table 4-5 alphabetically by strike area. Strike areas where no field has been designated by the Board are identified by "SA" immediately following the name. The approximate location of the strike area is also given. The data presented are condensed from the gas reserve system data file.<sup>1</sup> Pools having initial marketable gas reserves greater than or equal to 300 million cubic metres are listed individually. Pools having reserves less than 300 million cubic metres are grouped within each field or area and presented as a total. The total reserve in a field or area is shown as the last entry.

<sup>1</sup> The Board maintains a computer file of detailed reserves information for each pool in Alberta containing gas. The non-confidential portion of the file for year-end 1985 is available in the following forms:

- (a) Magnetic computer tape of the gas reserve file.
- (b) A 4-volume publication of gas reserves and reserve factors in photoreduced form.

Where the established reserve for a pool is based on material-balance or production-decline calculations, the reservoir factors last established for the pool for volumetric calculations have been retained for informational purposes.

Where production from two or more pools is commingled before measurement, the initial reserve estimate for each pool is shown, if available, together with the total reserve estimate for the pools. Production is subtracted from the sum of the initial established marketable reserves of the pools to obtain the remaining established marketable reserves. Similarly, because production of associated- and solution-gas reserves for a pool have not been determined separately, the combined net cumulative production is subtracted from the sum of the initial established marketable reserves of associated and solution gas. Therefore, Table 4-5 shows initial reserves by category but includes remaining associated- and solution-gas reserves only on a combined basis.

Gas reserves in communication with crude bitumen have been classified as non-associated reserves in this report.

The amount of marketable gas produced from a pool is determined by adjusting the cumulative raw gas production from the pool for the estimated surface loss. Where gas has been injected for the enhanced recovery of oil, cycling of gas pools, and gas storage, the volumes of injected gas are included in the remaining established reserves of marketable gas (column 6) of the respective pools. The volumes credited to the pools have been adjusted to reflect the decrease due to losses in the reservoir and in handling and processing.

The marketed gas production for 1985 was 73 billion cubic metres. It is emphasized that because changes, due to errors or to amendments to production reports, have been made to the previously reported cumulative raw gas production for some pools, and because of the adjustments made to the injected gas volumes discussed above, net production volumes for any year should not be calculated from cumulative numbers appearing in this and previous reports. (The actual net production of marketable gas is reported in the Board's publication ERCB ST 86-17, "Alberta Oil and Gas Industries - Annual Statistics" and for 1985 was 73 billion cubic metres.)

The principal purchasers of gas from particular fields are shown in column 20. This information is current for those applications which were considered in the gas-removal proceedings of 1982.<sup>2</sup> The remaining portion of this information has not been reviewed recently and the notations should be used with caution.

## 4.8 OTHER MATTERS

A summary of the distribution of established reserves of gas by geological period is shown in Table 4-3.

Pools that are common to more than one designated field and those pools whose production is commingled with such common pools are termed "multi-field pools". The reserve for each designated pool in a multi-field pool is shown under the designated field in Table 4-5. A list of pools contained in each multi-field pool, the individual initial established reserves, and the total initial established reserves for the multi-field pool are shown in Table 4-4.

Reserves in this report have been classified as within or beyond economic reach using a simple partially computerized procedure adopted by the Board in 1979. The Board estimates the reserves classified as beyond economic reach to be 50 billion cubic metres at 31 December 1985.

The map in the back pocket of this report shows the locations of Board-designated fields as at 31 December 1985.

<sup>2</sup> Energy Resources Conservation Board, 1983. Gas Removal Permit Applications Decisions. ERCB Report D 83-B. Calgary, Alberta.



**TABLE 4-1 MAJOR GAS RESERVE CHANGES  
1985**

| Pool  | 1                                      | 2             | 3  |
|---|--|---------------|--|
|   | Initial Established Reserves           |               | Main Reasons for Change  |
|   | 1985<br>10 <sup>6</sup> m <sup>3</sup> | Change        |  |
| Crossfield<br>Wabamun A                     | 13 500                                 | -1 100        | Re-evaluation of initial volume in place and recovery factor                   |
| Greencourt<br>Jurassic A                    | 1 980                                  | -1 400        | Re-evaluation of initial volume in place and recovery and surface loss factors |
| Hamburg<br>Slave Point 96-11 W6M            | 1 300                                  | +1 300        | Development  |
| Peco<br>Gething A                           | 3 000                                  | +1 000        | Development  |
| Provost<br>Viking CAK and Mannville E       | 36 000                                 | +8 066        | Re-evaluation of initial volume in place and recovery factor                   |
| Provost<br>Upper Mannville E2E <sup>a</sup> | 4 200                                  | +1 190        | Development  |
| Sedalia<br>Viking A                         | 241                                    | -1 159        | Re-evaluation of initial volume in place and recovery factor                   |
| Sedalia<br>Viking C and E                   | 1 050                                  | -1 319        | Re-evaluation of initial volume in place                                       |
| Teepee<br>Wabamun C                         | 1 780                                  | -2 920        | Re-evaluation of initial volume in place and recovery and surface loss factors |
| Valhalla<br>Halfway B                       | 4 550                                  | +3 150        | Re-evaluation of initial volume in place and recovery and surface loss factors |
| Wembley<br>Halfway B                        | 3 060                                  | +1 160        | Re-evaluation of initial volume in place and recovery and surface loss factors |
| Westerose<br>Upper Mannville B              | 2 000                                  | +2 000        | Development  |
| Total                                       |  | <u>+9 968</u> |  |

<sup>a</sup> Previously Maple Glen Upper Mannville B.

**TABLE 4-2 RESERVES OF GAS-CYCLING POOLS CALCULATED ON AN ENERGY BASIS**  
**As at 31 December 1985**

| Pool                              | 1  | 2                                    | 3                             | 4                  | 5  | 6                                   | 7   | 8   |
|-----------------------------------|--|--------------------------------------|-------------------------------|--------------------|--|-------------------------------------|---|---|
|                                   | Raw Gas<br>Initial<br>Volume<br>in Place | Raw Gas<br>Gross<br>Heating<br>Value | Initial<br>Energy<br>in Place | Recovery<br>Factor | Fuel &<br>Shrinkage<br>(Surface<br>Loss<br>Factor) | Initial<br>Marketable<br>Gas Energy | Marketable<br>Gas Gross<br>Heating<br>Value | Initial<br>Established<br>Reserves of<br>Marketable Gas |
|                                   | 10 <sup>6</sup> m <sup>3</sup>           | MJ/m <sup>3</sup>                    | 10 <sup>6</sup> MJ            | fraction           | fraction   | 10 <sup>6</sup> MJ                  | MJ/m <sup>3</sup>                           | 10 <sup>6</sup> m <sup>3</sup>                          |
| Brazeau River<br>Nisku J          | 707                                      | 74.44                                | 52 603                        | 0.75               | 0.50   | 19 726                              | 41.01                                       | 481   |
| Brazeau River<br>Nisku K          | 812                                      | 72.19                                | 58 643                        | 0.75               | 0.60   | 17 593                              | 41.01                                       | 429   |
| Brazeau River<br>Nisku M          | 1 250                                    | 76.22                                | 95 250                        | 0.75               | 0.60   | 28 575                              | 41.36                                       | 681   |
| Brazeau River<br>Nisku P          | 4 054                                    | 61.23                                | 248 228                       | 0.79               | 0.74   | 50 986                              | 39.22                                       | 1 300   |
| Carson Creek<br>Beaverhill Lake B | 10 941                                   | 55.68                                | 609 198                       | 0.90               | 0.39   | 334 450                             | 41.65                                       | 8 030   |
| Carstairs<br>Elkton A             | 29 910                                   | 40.30                                | 1 205 380                     | 0.90               | 0.23   | 835 328                             | 40.16                                       | 20 800  |
| Harmattan East<br>Rundle          | 36 782                                   | 50.26                                | 1 848 649                     | 0.85               | 0.26   | 1 162 800                           | 38.76                                       | 30 000  |
| Harmattan-Elkton<br>Rundle C      | 31 326                                   | 46.96                                | 1 471 056                     | 0.90               | 0.27   | 966 484                             | 41.48                                       | 23 300  |
| Kakwa<br>A Cardium A              | 874                                      | 55.40                                | 48 400                        | 0.85               | 0.32   | 27 975                              | 42.71                                       | 655   |
| Kaybob<br>Beaverhill Lake C       | 1 947                                    | 63.77                                | 124 187                       | 0.85               | 0.42   | 61 224                              | 41.09                                       | 1 490   |
| Kaybob South<br>Beaverhill Lake A | 104 424                                  | 47.90                                | 5 001 905                     | 0.70               | 0.58   | 1 470 560                           | 40.40                                       | 36 400  |
| Ricinus<br>Cardium B              | 537                                      | 56.87                                | 30 559                        | 0.85               | 0.48   | 13 507                              | 40.44                                       | 334   |
| Valhalla<br>Halfway B             | 6 301                                    | 53.89                                | 339 552                       | 0.80               | 0.33   | 182 000                             | 40.00                                       | 4 550   |
| Wembley<br>Halfway B              | 4 238                                    | 53.89                                | 228 358                       | 0.80               | 0.33   | 122 400                             | 40.00                                       | 3 060   |
| Westpem<br>Nisku E                | 1 160                                    | 66.05                                | 76 654                        | 0.90               | 0.54   | 31 735                              | 44.76                                       | 709   |



**TABLE 4-3 DISTRIBUTION OF ESTABLISHED RESERVES OF GAS BY GEOLOGICAL PERIOD**  
As at 31 December 1985

|                      | 1                              | 2                            | 3                         | 4                        | 5                       | 6                            | 7                         | 8                        |
|----------------------|--------------------------------|------------------------------|---------------------------|--------------------------|-------------------------|------------------------------|---------------------------|--------------------------|
| Geological Period    | Raw Gas                        | Marketable Gas               |                           | Remaining Energy Content | Raw Gas                 | Marketable Gas               |                           | Remaining Energy Content |
|                      | Initial Volume in Place        | Initial Established Reserves | Net Cumulative Production |                          | Initial Volume in Place | Initial Established Reserves | Net Cumulative Production |                          |
|                      | 10 <sup>6</sup> m <sup>3</sup> |                              |                           | TJ                       | Percentage of total     |                              |                           |                          |
|                      |                                |                              |                           |                          |                         |                              |                           |                          |
| Tertiary             |                                |                              |                           |                          |                         |                              |                           |                          |
| Tertiary             | 70                             | 36                           | 2                         | 1 235                    |                         |                              |                           |                          |
| Subtotal             | 70                             | 36                           | 2                         | 1 235                    |                         |                              |                           |                          |
| Upper Cretaceous     |                                |                              |                           |                          |                         |                              |                           |                          |
| Belly River          | 71 230                         | 41 965                       | 13 135                    | 1 102 884                | 1.40                    | 1.39                         | 1.06                      | 1.60                     |
| Milk River & Med Hat | 356 963                        | 232 028                      | 93 798                    | 5 019 141                | 7.05                    | 7.72                         | 7.58                      | 7.29                     |
| Cardium              | 229 693                        | 76 036                       | 25 525                    | 2 006 906                | 4.53                    | 2.53                         | 2.06                      | 2.91                     |
| Second White Specks  | 62 919                         | 44 639                       | 14 128                    | 1 109 917                | 1.24                    | 1.48                         | 1.14                      | 1.61                     |
| Other                | 24 749                         | 16 495                       | 3 075                     | 528 692                  | 0.48                    | 0.54                         | 0.24                      | 0.76                     |
| Subtotal             | 745 554                        | 411 163                      | 149 661                   | 9 767 540                | 14.73                   | 13.68                        | 12.10                     | 14.19                    |
| Lower Cretaceous     |                                |                              |                           |                          |                         |                              |                           |                          |
| Viking               | 370 459                        | 265 738                      | 131 438                   | 5 125 287                | 7.32                    | 8.84                         | 10.62                     | 7.44                     |
| Basal Colorado       | 41 205                         | 32 858                       | 25 560                    | 279 126                  | 0.81                    | 1.09                         | 2.06                      | 0.40                     |
| Mannville            | 1 286 934                      | 856 268                      | 246 369                   | 23 624 703               | 25.43                   | 28.49                        | 19.92                     | 34.33                    |
| Other                | 40 084                         | 26 958                       | 11 645                    | 594 683                  | 0.79                    | 0.89                         | 0.94                      | 0.86                     |
| Subtotal             | 1 738 682                      | 1 181 822                    | 415 012                   | 29 623 799               | 34.35                   | 39.32                        | 33.55                     | 43.04                    |
| Jurassic             |                                |                              |                           |                          |                         |                              |                           |                          |
| Jurassic             | 48 886                         | 33 801                       | 12 057                    | 864 184                  | 0.96                    | 1.12                         | 0.97                      | 1.25                     |
| Other                | 37 420                         | 24 873                       | 4 342                     | 809 760                  | 0.73                    | 0.82                         | 0.35                      | 1.17                     |
| Subtotal             | 86 306                         | 58 674                       | 16 399                    | 1 673 944                | 1.70                    | 1.95                         | 1.32                      | 2.43                     |
| Triassic             |                                |                              |                           |                          |                         |                              |                           |                          |
| Triassic             | 41 656                         | 27 166                       | 4 918                     | 913 640                  | 0.82                    | 0.90                         | 0.39                      | 1.32                     |
| Other                | 36 505                         | 25 566                       | 1 199                     | 937 146                  | 0.72                    | 0.85                         | 0.09                      | 1.36                     |
| Subtotal             | 78 161                         | 52 732                       | 6 117                     | 1 850 786                | 1.54                    | 1.75                         | 0.49                      | 2.68                     |
| Permian              |                                |                              |                           |                          |                         |                              |                           |                          |
| Belloy               | 8 989                          | 5 955                        | 929                       | 193 810                  | 0.17                    | 0.19                         | 0.07                      | 0.28                     |
| Other                | 300                            | 221                          | —                         | 8 522                    | —                       | —                            | —                         | 0.01                     |
| Subtotal             | 9 289                          | 6 176                        | 929                       | 202 332                  | 0.18                    | 0.20                         | 0.07                      | 0.29                     |
| Mississippian        |                                |                              |                           |                          |                         |                              |                           |                          |
| Rundle               | 968 903                        | 592 803                      | 332 069                   | 10 364 338               | 19.14                   | 19.72                        | 26.85                     | 15.06                    |
| Other                | 64 700                         | 46 481                       | 21 222                    | 989 357                  | 1.27                    | 1.54                         | 1.71                      | 1.43                     |
| Subtotal             | 1 033 603                      | 639 284                      | 353 291                   | 11 353 695               | 20.42                   | 21.27                        | 28.56                     | 16.49                    |

TABLE 4-3 (continued)

|                           | 1                              | 2                            | 3                         | 4                        | 5                       | 6                            | 7                         | 8                        |
|---------------------------|--------------------------------|------------------------------|---------------------------|--------------------------|-------------------------|------------------------------|---------------------------|--------------------------|
| Geological Period         | Raw Gas                        | Marketable Gas               |                           |                          | Raw Gas                 | Marketable Gas               |                           |                          |
|                           | Initial Volume in Place        | Initial Established Reserves | Net Cumulative Production | Remaining Energy Content | Initial Volume in Place | Initial Established Reserves | Net Cumulative Production | Remaining Energy Content |
|                           | 10 <sup>6</sup> m <sup>3</sup> |                              |                           | TJ                       | Percentage of total     |                              |                           |                          |
|                           |                                |                              |                           |                          |                         |                              |                           |                          |
| Upper Devonian            |                                |                              |                           |                          |                         |                              |                           |                          |
| Wabamun                   | 196 154                        | 88 815                       | 45 804                    | 1 629 259                | 3.87                    | 2.95                         | 3.70                      | 2.36                     |
| Nisku                     | 88 073                         | 42 099                       | 12 294                    | 1 171 089                | 1.74                    | 1.40                         | 0.99                      | 1.70                     |
| Leduc                     | 479 485                        | 236 800                      | 150 037                   | 3 588 487                | 9.47                    | 7.88                         | 12.13                     | 5.21                     |
| Beaverhill Lake           | 339 695                        | 147 573                      | 48 857                    | 3 903 941                | 6.71                    | 4.91                         | 3.95                      | 5.67                     |
| Other                     | 85 780                         | 42 547                       | 28 481                    | 539 739                  | 1.69                    | 1.41                         | 2.30                      | 0.78                     |
| Subtotal                  | 1 189 187                      | 557 834                      | 285 473                   | 10 832 515               | 23.49                   | 18.56                        | 23.08                     | 15.74                    |
| Middle Devonian           |                                |                              |                           |                          |                         |                              |                           |                          |
| Sulphur Point             | 11 546                         | 7 799                        | 632                       | 286 183                  | 0.22                    | 0.25                         | 0.05                      | 0.41                     |
| Muskeg                    | 3 357                          | 1 835                        | 223                       | 67 313                   | 0.06                    | 0.06                         | 0.01                      | 0.09                     |
| Keg River                 | 41 341                         | 19 676                       | 4 647                     | 676 186                  | 0.81                    | 0.65                         | 0.37                      | 0.98                     |
| Other                     | 22 926                         | 7 607                        | 4 292                     | 138 584                  | 0.45                    | 0.25                         | 0.34                      | 0.20                     |
| Subtotal                  | 79 170                         | 36 917                       | 9 794                     | 1 168 266                | 1.56                    | 1.22                         | 0.79                      | 1.69                     |
| Beyond economic reach     | 85 451                         | 50 301                       | —                         | 1 952 235                | 1.68                    | 1.67                         | —                         | 2.83                     |
| Confidential <sup>a</sup> | 15 069                         | 9 994                        | —                         | 387 963                  | 0.29                    | 0.33                         | —                         | 0.56                     |
| Total                     | 5 060 542                      | 3 004 933                    | 1 236 678                 | 68 814 310               | 100.00 <sup>b</sup>     | 100.00 <sup>b</sup>          | 100.00 <sup>b</sup>       | 100.00 <sup>b</sup>      |
|                           | (179 618) <sup>c</sup>         | (106 656) <sup>c</sup>       |                           | (65 251) <sup>d</sup>    |                         |                              |                           |                          |

<sup>a</sup> Some "confidential" reserves included in "beyond economic reach" category.<sup>b</sup> Discrepancies are due to rounding.<sup>c</sup> Imperial equivalent in billions of cubic feet at 14.65 pounds per square inch absolute and 60 degrees Fahrenheit.<sup>d</sup> Imperial equivalent in billions of cubic feet of 1000 British thermal units per cubic foot gas.



**TABLE 4-4 RESERVES OF MULTI-FIELD POOLS**  
As at 31 December 1985

| Multi-field Pool<br>Field and Pool | Initial<br>Established<br>Reserves |
|------------------------------------|------------------------------------|
|                                    | 10 <sup>6</sup> m <sup>3</sup>     |
| <b>Edmonton Pool No. 1</b>         |                                    |
| Bashaw Edmonton D                  | 26                                 |
| Nevis Edmonton D                   | 232                                |
| Total                              | 258                                |

|                               |       |
|-------------------------------|-------|
| <b>Belly River Pool No. 1</b> |       |
| Bashaw Belly River C          | 875   |
| Nevis Belly River C           | 586   |
| Total                         | 1 461 |

|                              |         |
|------------------------------|---------|
| <b>Milk River Pool No. 1</b> |         |
| Alderson Milk River A        | 13 360  |
| Atlee-Buffalo Milk River A   | 5 500   |
| Bantry Milk River A          | 5 980   |
| Bindloss Milk River A        | 1 010   |
| Bow Island Milk River A      | 67      |
| Brooks Milk River A          | 295     |
| Cassils Milk River A         | 1 650   |
| Cessford Milk River A        | 2 780   |
| Connorsville Milk River A    | 676     |
| Countess Milk River A        | 5 890   |
| Jenner Milk River A          | 3 510   |
| Johnson Milk River A         | 356     |
| Kitsim Milk River A          | 125     |
| Leckie Milk River A          | 365     |
| Matziwin Milk River A        | 1 880   |
| Medicine Hat Milk River A    | 30 620  |
| Newell Milk River A          | 956     |
| Princess Milk River A        | 7 770   |
| Suffield Milk River A        | 20 690  |
| Verger Milk River A          | 5 230   |
| Wintering Hills Milk River A | 1 290   |
| Total                        | 110 000 |

|                                |       |
|--------------------------------|-------|
| <b>Medicine Hat Pool No. 1</b> |       |
| Alderson Medicine Hat A        | 2 800 |
| Atlee-Buffalo Medicine Hat A   | 2 470 |
| Bantry Medicine Hat A          | 3 410 |
| Bassano Medicine Hat A         | 418   |
| Bindloss Medicine Hat A        | 372   |

| Multi-field Pool<br>Field and Pool | Initial<br>Established<br>Reserves |
|------------------------------------|------------------------------------|
|                                    | 10 <sup>6</sup> m <sup>3</sup>     |
| Brooks Medicine Hat A              | 44                                 |
| Cassils Medicine Hat A             | 840                                |
| Cessford Medicine Hat A            | 6 800                              |
| Connorsville Medicine Hat A        | 1 920                              |
| Countess Medicine Hat A            | 7 600                              |
| Estuary Medicine Hat A             | 135                                |
| Eyremore Medicine Hat A            | 118                                |
| Gleichen Medicine Hat A            | 450                                |
| Hussar Medicine Hat A              | 2 950                              |
| Jenner Medicine Hat A              | 1 300                              |
| Johnson Medicine Hat A             | 12                                 |
| Kitsim Medicine Hat A              | 270                                |
| Lathom Medicine Hat A              | 245                                |
| Leckie Medicine Hat A              | 137                                |
| Matziwin Medicine Hat A            | 1 430                              |
| Medicine Hat Medicine Hat A        | 50 000                             |
| Newell Medicine Hat A              | 71                                 |
| Princess Medicine Hat A            | 4 350                              |
| Seiu Lake Medicine Hat A           | 290                                |
| Suffield Medicine Hat A            | 11 200                             |
| Verger Medicine Hat A              | 6 000                              |
| Wayne-Rosedale Medicine Hat A      | 1 130                              |
| Wintering Hills Medicine Hat A     | 3980                               |
| Total                              | 110 742                            |

|                                |       |
|--------------------------------|-------|
| <b>Medicine Hat Pool No. 3</b> |       |
| Alderson Medicine Hat C        | 670   |
| Atlee-Buffalo Medicine Hat C   | 11    |
| Bantry Medicine Hat C          | 915   |
| Bow Island Medicine Hat C      | 12    |
| Brooks Medicine Hat C          | 11    |
| Cassils Medicine Hat C         | 100   |
| Cessford Medicine Hat C        | 110   |
| Countess Medicine Hat C        | 75    |
| Jenner Medicine Hat C          | 36    |
| Matziwin Medicine Hat C        | 16    |
| Medicine Hat Medicine Hat C    | 2 630 |
| Newell Medicine Hat C          | 44    |
| Princess Medicine Hat C        | 350   |
| Suffield Medicine Hat C        | 618   |
| Verger Medicine Hat C          | 84    |
| Total                          | 5 682 |

TABLE 4-4 (continued)

| Multi-field Pool<br>Field and Pool    | Initial<br>Established<br>Reserves |
|---------------------------------------|------------------------------------|
|                                       | 10 <sup>6</sup> m <sup>3</sup>     |
| <b>Medicine Hat Pool No. 4</b>        |                                    |
| Alderson Medicine Hat D               | 180                                |
| Atlee-Buffalo Medicine Hat D          | 22                                 |
| Bantry Medicine Hat D                 | 60                                 |
| Bindloss Medicine Hat D               | 3                                  |
| Bow Island Medicine Hat D             | 2                                  |
| Brooks Medicine Hat D                 | 1                                  |
| Cessford Medicine Hat D               | 480                                |
| Countess Medicine Hat D               | 46                                 |
| Jenner Medicine Hat D                 | 70                                 |
| Matziwin Medicine Hat D               | 99                                 |
| Medicine Hat Medicine Hat D           | 2 400                              |
| Newell Medicine Hat D                 | 18                                 |
| Princess Medicine Hat D               | 250                                |
| Suffield Medicine Hat D               | 1 000                              |
| Verger Medicine Hat D                 | 214                                |
| Total                                 | 4 845                              |
| <b>Cardium Pool No. 1</b>             |                                    |
| Ansell Cardium FF                     | 268                                |
| Edson Cardium FF                      | 498                                |
| Edson Cardium BBB                     | 47                                 |
| Fickle Cardium FF                     | 243                                |
| Galloway Cardium FF                   | 210                                |
| Total                                 | 1 266                              |
| <b>Second White Specks Pool No. 1</b> |                                    |
| Alderson Second White Specks A        | 12 500                             |
| Atlee-Buffalo Second White Specks A   | 47                                 |
| Bantry Second White Specks A          | 1 650                              |
| Bow Island Second White Specks A      | 830                                |
| Cessford Second White Specks A        | 410                                |
| Jenner Second White Specks A          | 1 130                              |
| Johnson Second White Specks A         | 98                                 |
| Matziwin Second White Specks A        | 60                                 |
| Medicine Hat Second White Specks A    | 4 869                              |
| Princess Second White Specks A        | 5 530                              |
| Suffield Second White Specks A        | 11 200                             |
| Verger Second White Specks A          | 2020                               |
| Total                                 | 40 344                             |

| Multi-field Pool<br>Field and Pool  | Initial<br>Established<br>Reserves |
|-------------------------------------|------------------------------------|
|                                     | 10 <sup>6</sup> m <sup>3</sup>     |
| <b>Bow Island Pool No. 1</b>        |                                    |
| Medicine Hat Bow Island C           | 332                                |
| Suffield Bow Island C               | 313                                |
| Total                               | 645                                |
| <b>Viking Pool No. 1</b>            |                                    |
| Fairydell-Bon Accord                |                                    |
| Upper Viking A                      | 1 000                              |
| Fairydell-Bon Accord                |                                    |
| Middle Viking A                     | 2 800                              |
| Fairydell-Bon Accord                |                                    |
| Middle Viking B                     | 511                                |
| Peavey Upper Viking A               | 12                                 |
| Redwater Upper Viking A             | 1 940                              |
| Redwater Middle Viking A            | 597                                |
| Redwater Lower Viking A             | 233                                |
| Westlock Middle Viking B            | 264                                |
| Total                               | 7 357                              |
| <b>Viking Pool No. 2</b>            |                                    |
| Beaverhill Lake Upper Viking A & B, |                                    |
| Middle Viking A and                 |                                    |
| Lower Viking A                      | 4 800                              |
| Bellshill Lake Upper Viking A       | 134                                |
| Birch Upper and Middle Viking A     | 47                                 |
| Bruce Upper Viking A and            |                                    |
| Middle Viking A & B                 | 3 700                              |
| Dinant Upper Viking A               | 53                                 |
| Fort Saskatchewan Upper and         |                                    |
| Middle Viking A                     | 7 500                              |
| Holmberg Upper Viking A             | 82                                 |
| Killam Upper and Middle Viking A    | 1 400                              |
| Killam North Upper and Middle       |                                    |
| Viking A, Basal Mannville C and     |                                    |
| Nisku A                             | 1 100                              |
| Mannville Upper and                 |                                    |
| Middle Viking A                     | 213                                |
| Sedgewick Upper Viking A            | 179                                |
| Viking-Kinsella Upper and           |                                    |
| Middle Viking A and                 |                                    |
| Upper Mannville YY                  | 29 000                             |
| Total                               | 48 208                             |



TABLE 4-4 (continued)

| Multi-field Pool<br>Field and Pool | Initial<br>Established<br>Reserves | Multi-field Pool<br>Field and Pool           | Initial<br>Established<br>Reserves |
|------------------------------------|------------------------------------|--|------------------------------------|
|                                    | 10 <sup>6</sup> m <sup>3</sup>     |  | 10 <sup>6</sup> m <sup>3</sup>     |
| <b>Viking Pool No. 3</b>           |                                    | <b>Viking Pool No. 7</b>                     |                                    |
| Carbon Viking D                    | 1 400                              | Inland Upper Viking C                        | 143                                |
| Ghost Pine Viking D                | 158                                | Inland Upper Viking E and<br>Middle Viking F | 74                                 |
| Total                              | 1 558                              | Inland Middle Viking G                       | 26                                 |
|                                    |                                    | Royal Upper Viking C and<br>Lower Viking A   | 43                                 |
| <b>Viking Pool No. 4</b>           |                                    | Total  | 286                                |
| Fenn-Big Valley Viking B           | 250                                |  |                                    |
| Fenn West Viking B                 | 491                                | <b>Viking Pool No. 10</b>                    |                                    |
| Lousana Viking B                   | 12                                 | Goodridge Viking F                           | 114                                |
| Total                              | 753                                | Jarvie Viking F                              | 94                                 |
|                                    |                                    | Westlock Viking F                            | 251                                |
| <b>Viking Pool No. 5</b>           |                                    | Total  | 459                                |
| Hudson Viking A                    | 687                                |  |                                    |
| Sedalia Viking A                   | 241                                | <b>Viking Pool No. 11</b>                    |                                    |
| Sedalia Viking F                   | 5                                  | Jarvie Viking G                              | 66                                 |
| Sedalia Upper Mannville D          | 43                                 | Westlock Viking G                            | 112                                |
| Sedalia Lower Mannville B          | 91                                 | Total  | 178                                |
| Total                              | 1 067                              |  |                                    |
|                                    |                                    | <b>Viking Pool No. 12</b>                    |                                    |
| <b>Viking Pool No. 6</b>           |                                    | Atlee-Buffalo Viking A                       | 17                                 |
| Ashmont Viking A                   | 731                                | Suffield Viking A                            | 32                                 |
| Bellis Viking A                    | 34                                 | Total  | 49                                 |
| Cache Viking A                     | 1 790                              |  |                                    |
| Canard Viking A                    | 304                                | <b>St. Edouard Pool No. 3</b>                |                                    |
| Clay Viking A                      | 864                                | Ukalta St. Edouard B                         | 60                                 |
| Corrin Viking A                    | 924                                | Whitford St. Edouard B                       | 34                                 |
| Craigend Viking A                  | 4 500                              | Total  | 94                                 |
| Duvernay Viking A                  | 1 240                              |  |                                    |
| Duvernay Viking M                  | 40                                 | <b>Glaucanitic Pool No. 3</b>                |                                    |
| Glendon Viking A                   | 35                                 | Bonnie Glen Glaucanitic A                    | 2 010                              |
| Hairy Hill Viking A                | 590                                | Ferrybank Glaucanitic A                      | 1 930                              |
| Owlseye Viking A                   | 120                                | Total  | 3 940                              |
| Plain Viking A                     | 38                                 |  |                                    |
| St. Paul Viking A                  | 192                                | <b>Glaucanitic Pool No. 4</b>                |                                    |
| Stry Viking A                      | 367                                | Cessford Glaucanitic T                       | 248                                |
| Sugden Viking A                    | 4 180                              | Cessford Mannville HH                        | 773                                |
| Therein Viking A                   | 269                                | Wayne-Rosedale Glaucanitic T                 | 1 330                              |
| Ukalta Viking A                    | 266                                | Total  | 2 351                              |
| Whitford Viking A                  | 990                                |  |                                    |
| Willingdon Viking A                | 322                                |  |                                    |
| Willingdon Viking B                | 6                                  |  |                                    |
| Total                              | 17 802                             |  |                                    |

TABLE 4-4 (continued)

| Multi-field Pool<br>Field and Pool | Initial<br>Established<br>Reserves<br><br>10 <sup>6</sup> m <sup>3</sup> | Multi-field Pool<br>Field and Pool | Initial<br>Established<br>Reserves<br><br>10 <sup>6</sup> m <sup>3</sup> |
|------------------------------------|--|------------------------------------|--|
| <b>Glaucanitic Pool No. 5</b>      |  | <b>Debolt Pool No. 1</b>           |  |
| Bigoray Glaucanitic I              | 890  | Cranberry Debolt A                 | 1 720  |
| Pembina Glaucanitic I              | 2 580  | Hotchkiss Debolt A                 | 2 870  |
| Pembina Lobstick Glaucanitic D     | 130  | Total                              | 4 590  |
| Total                              | 3 600  |                                    |  |
| <b>Bluesky Pool No. 1</b>          |  | <b>Banff Pool No. 1</b>            |  |
| Boyer Bluesky A & Gething A        | 11 246   | Haro Banff E                       | 255  |
| Haro Bluesky A                     | 5 003  | Rainbow Banff E                    | 15   |
| Rainbow Bluesky A                  | 4 677  | Rainbow South Banff E              | 101  |
| Rainbow South Bluesky A            | 70   | Total                              | 371  |
| Sousa Bluesky A                    | 928  |                                    |  |
| Steen Bluesky A                    | 378  |                                    |  |
| Virgo Bluesky A                    | 314  |                                    |  |
| Total                              | 22 616   |                                    |  |
| <b>McMurray Pool No. 1</b>         |  |                                    |  |
| Chard McMurray B                   | 2 230  |                                    |  |
| Newby McMurray B                   | 244  |                                    |  |
| Total                              | 2 474  |                                    |  |
| <b>Ellerslie Pool No. 1</b>        |  |                                    |  |
| Connorsville Glaucanitic A         | 241  |                                    |  |
| Connorsville Glaucanitic B         | 22   |                                    |  |
| Connorsville Glaucanitic C         | 166  |                                    |  |
| Connorsville Glaucanitic E         | 190  |                                    |  |
| Connorsville Ellerslie A           | 2 700  |                                    |  |
| Wintering Hills Ellerslie A        | 1290   |                                    |  |
| Total                              | 4 609  |                                    |  |
| <b>Cadomin Pool No. 1</b>          |  |                                    |  |
| Elmworth Cadomin A                 | 4 820  |                                    |  |
| Sinclair Cadomin A                 | 2 750  |                                    |  |
| Wapiti Cadomin A                   | 6 390  |                                    |  |
| Total                              | 13 960   |                                    |  |
| <b>Halfway Pool No. 1</b>          |  |                                    |  |
| Valhalla Halfway B                 | 4 550  |                                    |  |
| Wembley Halfway B                  | 3 060  |                                    |  |
| Total                              | 7 610  |                                    |  |





## **Reserves of Gas and Basic Data**

---

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9       |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|---------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA    |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |         |
| ABEE 062-22W4<br>TOTAL-ABEE                  | 2 761   |                          |                         | 1 717  | 460   | 1 257  |   | 48 545                               |         |
| ACADIA 026-04W4<br>TOTAL-ACADIA              | 317   |                          |                         | 222  | 3   | 219  |   | 8 197                                |         |
| ACHESON 052-26W4<br>D-3 A SOLN               | 2 107   | 0.74                     | 0.30                    | 1 093  | 967   | 126  | 39  | 4 952                                |         |
| OTHER  | 2 042   |                          |                         | 1 264  | 507   | 757  |   | 29 661                               |         |
| TOTAL-ACHESON                                | 4 149   |                          |                         | 2 357  | 1 474   | 883  |   | 34 613                               |         |
| ACHESON EAST 052-25W4<br>TOTAL-ACHESON EAST  | 669   |                          |                         | 208  | 30  | 178  |   | 6 995                                |         |
| ACME 026-26W4<br>TOTAL-ACME                  | 202   |                          |                         | 131  |   | 131  |   | 5 307                                |         |
| ADEN 001-09W4<br>RUNDLE A                    | 958   | 0.85                     | 0.15                    | 692  | 335   | 357  | 39  | 13 898                               | 530     |
| OTHER  | 571   |                          |                         | 391  | 213   | 178  |   | 6 659                                |         |
| TOTAL-ADEN                                   | 1 529   |                          |                         | 1 083  | 548   | 535  |   | 20 557                               |         |
| AERIAL 029-18W4<br>TOTAL-AERIAL              | 669   |                          |                         | 388  | 65  | 323  |   | 12 906                               |         |
| AETNA (SA) 002-25W4<br>TOTAL-AETNA           | 137   |                          |                         | 104  |   | 104  |   | 3 893                                |         |
| AKUINU 066-03W5<br>TOTAL-AKUINU              | 655   |                          |                         | 445  | 61  | 384  |   | 14 243                               |         |
| ALBERS 042-07W4<br>TOTAL-ALBERS              | 143   |                          |                         | 99   |   | 99   |   | 3 814                                |         |
| ALBRIGHT 072-09W6<br>TOTAL-ALBRIGHT          | 945   |                          |                         | 672  |   | 672  |   | 25 153                               |         |
| ALCOMDALE 057-26W4<br>TOTAL-ALCOMDALE        | 235   |                          |                         | 147  | 5   | 142  |   | 5 263                                |         |
| ALDER 045-07W5<br>TOTAL-ALDER                | 139   |                          |                         | 94   |   | 94   |   | 3 765                                |         |
| ALDERSON 015-11W4<br>MILK RIVER A            | 20 090  | 0.70                     | 0.05                    | 13 360   |   |  | 36a   |                                      | 157 212 |
| MEDICINE HAT A                               | 4 124   | 0.70                     | 0.03                    | 2 800  |   |  | 36a   |                                      | 67 579  |
| MEDICINE HAT C                               | 1 382   | 0.50                     | 0.03                    | 670  |   |  | 36a   |                                      | 57 722  |
| MEDICINE HAT D                               | 371   | 0.50                     | 0.03                    | 180  |   |  | 36a   |                                      | 15 754  |
| SE ALTA GAS SYS(MU) TOTAL                    | 25 967  | 0.70                     | 0.05                    | 17 010   | 7 106   | 9 904  | 36a   | 359 614                              |         |
| SECOND WHITE SPECKS A                        | 17 544  | 0.75                     | 0.05                    | 12 500   | 5 743   | 6 757  | 36  | 245 347                              | 143 705 |
| UPPER MANNVILLE M                            | 448   | 0.85                     | 0.10                    | 342  | 19  | 323  | 41  | 13 301                               | 440     |
| OTHER  | 7 153   |                          |                         | 4 911  | 631   | 4 280  |   | 169 689                              |         |
| TOTAL-ALDERSON                               | 51 112  |                          |                         | 34 763   | 13 499  | 21 264   |   | 787 951                              |         |
| ALEXANDER 056-27W4<br>BASAL QUARTZ A         | 4 299   | 0.94                     | 0.03                    | 3 920  | 3 851   | 69   | 40a   | 2 738                                | 4 698   |
| OTHER  | 271   |                          |                         | 151  | 72  | 79   |   | 3 135                                |         |
| TOTAL-ALEXANDER                              | 4 570   |                          |                         | 4 071  | 3 923   | 148  |   | 5 873                                |         |
| ALEXIS 055-05W5<br>BANFF A SOLN              | 386   | 0.65                     | 0.40                    | 151b   |   | 40   |   |                                      |         |
| BANFF A ASSOC                                | 330   | 0.85                     | 0.10                    | 266b   | 49b   | 368  | 40  | 14 602                               | 375     |
| OTHER  | 247   |                          |                         | 171  |   | 171  |   | 6 659                                |         |
| TOTAL-ALEXIS                                 | 963   |                          |                         | 588  | 49  | 539  |   | 21 261                               |         |
| ALIX 040-23W4<br>TOTAL-ALIX                  | 852   |                          |                         | 442  | 87  | 355  |   | 14 521                               |         |
| ALKALI 024-05W4<br>TOTAL-ALKALI              | 96  |                          |                         | 68   |   | 68   |   | 2 520                                |         |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                          |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |  |
|                             |          |             |                     |      |          | 0.70                           |                            | 1950         | 1984                     | NUL NORCEN                                       |
| 9.30                        | 0.100    | 0.80        | 6 850               | 30   | 0.884    | 0.59                           | 871.9                      | 1960         | 1985                     | CMG MATERIAL BALANCE                             |
| 5.05                        | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.58                           | 355.7                      | 1910         | 1983                     | PART OF MILK RIV POOL NO.1 PRODUCTION<br>DECLINE |
| 1.41                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904         | 1982                     | PART OF MED HAT POOL NO.1                        |
| 0.61                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973         | 1982                     | PART OF MED HAT POOL NO.3                        |
| 0.60                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.58                           | 487.7                      | 1973         | 1984                     | PART OF MED HAT POOL NO.4                        |
| 1.57                        | 0.216    | 0.60        | 5 690               | 27   | 0.899    | 0.57                           | 630.0                      | 1904         | 1984                     | CWNGNUL KANNGAZ TCPL                             |
| 6.00                        | 0.200    | 0.65        | 11 270              | 33   | 0.803    | 0.64                           | 1 003.3                    | 1939         | 1984                     | CWNGNUL KANNGAZ TCPL PART OF 2WS POOL NO.1       |
|                             |          |             |                     |      |          |                                |                            | 1971         | 1983                     | TCPL   |
| 3.11                        | 0.220    | 0.80        | 9 210               | 45   | 0.845    | 0.65                           | 1 167.8                    | 1954         | 1980                     | NORCEN MATERIAL BALANCE                          |
| 8.63                        | 0.131    | 0.65        | 11 410              | 52   | 0.835    | 0.66                           | 1 351.5                    | 1968         | 1979                     | PANALTA CONCURRENT PRODUCTION                    |
|                             |          |             |                     |      |          | 0.66                           |                            | 1968         | 1979                     | PANALTA CONCURRENT PRODUCTION                    |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE  | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9          |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|------------|
|   | RAW GAS                                     |                          |                         | MARKETABLE GAS                                   |   |  |   |                                      | AREA       |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>$10^6 m^3$ | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>$10^6 m^3$ | NET<br>CUMULATIVE<br>PRODUCTION<br>$10^6 m^3$ | REMAINING<br>ESTABLISHED<br>RESERVES<br>$10^6 m^3$ | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |            |
| ALLIANCE 040-13W4<br>TOTAL-ALLIANCE   | 62  |                          |                         | 42   |   | 42   |   | 1 571                                |            |
| ALSASK 027-01W4<br>TOTAL-ALSASK   | 752   |                          |                         | 526  | 86  | 440  |   | 16 701                               |            |
| ALSIKE 049-02W5<br>TOTAL-ALSIKE   | 19  |                          |                         | 13   |   | 13   |   | 516                                  |            |
| ALTARIO 035-01W4<br>TOTAL-ALTARIO   | 597   |                          |                         | 409  |   | 409  |   | 15 383                               |            |
| AMADOU 073-20W4<br>TOTAL-AMADOU   | 108   |                          |                         | 62   |   | 62   |   | 2 320                                |            |
| AMBER 116-07W6<br>TOTAL-AMBER   | 2 349                                       |                          |                         | 1 377  | 172   | 1 205  |   | 53 038                               |            |
| AMELIA (SA) 010-27W4<br>TOTAL-AMELIA  | 35  |                          |                         | 22   |   | 22   |   | 840                                  |            |
| AMIGO 119-07W6<br>TOTAL-AMIGO   | 1 546                                       |                          |                         | 993  |   | 993  |   | 42 184                               |            |
| AMMIN (SA) 060-05W6<br>TOTAL-AMMIN  | 1 280                                       |                          |                         | 887  |   | 887  |   | 33 682                               |            |
| ANATOLE 031-03W4<br>TOTAL-ANATOLE   | 198   |                          |                         | 133  | 2   | 131  |   | 4 903                                |            |
| ANDREW (SA) 043-15W4<br>TOTAL-ANDREW  | 105   |                          |                         | 70   |   | 70   |   | 2 699                                |            |
| ANGLING 060-02W4<br>TOTAL-ANGLING   | 592   |                          |                         | 357  | 242   | 115  |   | 4 304                                |            |
| ANGLO 019-18W4<br>TOTAL-ANGLO   | 329   |                          |                         | 230  | 19  | 211  |   | 7 896                                |            |
| ANKERTON 044-15W4<br>TOTAL-ANKERTON   | 673   |                          |                         | 432  |   | 432  |   | 16 171                               |            |
| ANNA (SA) 120-10W6<br>TOTAL-ANNA  | 18  |                          |                         | 11   |   | 11   |   | 453                                  |            |
| ANNE (SA) 003-21W4<br>TOTAL-ANNE  | 81  |                          |                         | 58   |   | 58   |   | 2 085                                |            |
| ANSELL 052-20W5<br>BLUESKY 051-20<br>OTHER<br>TOTAL-ANSELL                                | 919<br>2 563<br>3 482                       | 0.75                     | 0.10                    | 620<br>985<br>1 605                              | <br>2<br>2                                    | 620<br>983<br>1 603                                | 37  | 23 207<br>37 461<br>60 668           | 1 502      |
| ANTE CREEK 065-24W5<br>PEACE RIVER A<br>BEAVERHILL LAKE SDLN<br>OTHER<br>TOTAL-ANTE CREEK | 604<br>2 026<br>750<br>3 380                | 0.80<br>0.60             | 0.05<br>0.20            | 459<br>972<br>451<br>1 882                       | 110<br>755<br>-299<br>566                     | 349<br>217<br>750<br>1 316                         | 41<br>41                                    | 14 372<br>8 854<br>30 889<br>54 115  | 1 632      |
| ANTE CREEK NORTH 067-23W5<br>TOTAL-ANTE CREEK NORTH                                       | 1 357                                       |                          |                         | 996  | 3   | 993  |   | 41 306                               |            |
| ANTELOPE 030-01W4<br>COLONY A<br>OTHER<br>TOTAL-ANTELOPE                                  | 539<br>1 064<br>1 603                       | 0.85                     | 0.05                    | 435<br>680<br>1 115                              | 115<br>250<br>365                             | 320<br>430<br>750                                  | 38  | 12 099<br>16 901<br>29 000           | 3 179      |
| ANTHONY (SA) 083-24W5<br>TOTAL-ANTHONY  | 25  |                          |                         | 12   |   | 12   |   | 454                                  |            |
| ANTLER (SA) 048-24W5<br>BLAIRMORE 31-048-23<br>PEKISKD 33-048-24                          | 1 138<br>712                                | 0.90<br>0.80             | 0.10<br>0.10            | 922<br>513                                       |   | 922<br>513   | 37<br>41                                    | 34 510<br>21 125                     | 200<br>128 |



| 10                          | 11             | 12           | 13                  | 14        | 15             | 16                             | 17                         | 18           | 19                       | 20                      |
|-----------------------------|----------------|--------------|---------------------|-----------|----------------|--------------------------------|----------------------------|--------------|--------------------------|-------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY       | GAS<br>SATN  | INITIAL<br>PRESSURE | TEMP      | COMPRESS       | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS |
| m                           | frac           | frac         | kPa                 | °C        | frac           | frac                           | m                          |              |                          |                         |
| 3.51                        | 0.114          | 0.75         | 22 390              | 78        | 0.890          | 0.64                           | 2 982.1                    | 1974         | 1985                     | TCPL                    |
| 2.24                        | 0.188          | 0.70         | 12 130              | 54        | 0.840          | 0.62                           | 1 673.0                    | 1962<br>1963 | 1985<br>1983             | TCPL<br>A&S TCPL        |
| 1.45                        | 0.310          | 0.45         | 7 650               | 26        | 0.868          | 0.58                           | 768.4                      | 1957         | 1985                     | MIP                     |
| 22.82<br>30.84              | 0.200<br>0.090 | 0.65<br>0.80 | 20 820<br>33 270    | 84<br>108 | 0.865<br>0.992 | 0.71<br>0.63                   | 2 088.3<br>4 015.2         | 1977<br>1977 | 1978<br>1982             | BER<br>BER TOP/BASE TVD |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>ANTLER (SA) 048-24W5<br/>(CONTINUED)</b>  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ANTLER                                 | 1 850   |                          |                         | 1 435  |   | 1 435  |   | 55 635                               |        |
| <b>APETOWN (SA) 052-25W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| NISKU 22-052-22                              | 873   | 0.75                     | 0.45                    | 360  |   | 360  | 39  | 14 148                               | 200    |
| TOTAL-APETOWN                                | 873   |                          |                         | 360  |   | 360  |   | 14 148                               |        |
| <b>APHRODITES (SA) 014-01W5</b>              |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-APHRODITES                             | 316   |                          |                         | 242  |   | 242  |   | 9 058                                |        |
| <b>ARDENODE 066-25W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ARDENODE                               | 58  |                          |                         | 38   |   | 38   |   | 1 422                                |        |
| <b>ARGUS (SA) 103-08W6</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ARGUS                                  | 52  |                          |                         | 32   |   | 32   |   | 1 258                                |        |
| <b>ARMADA 016-19W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ARMADA                                 | 962   |                          |                         | 655  | 138   | 517  |   | 19 673                               |        |
| <b>ARMISIE 052-25W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ARMISIE                                | 184   |                          |                         | 68   | 18  | 50   |   | 1 797                                |        |
| <b>ARMITAGE 074-13W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ARMITAGE                               | 268   |                          |                         | 134  |   | 134  |   | 5 016                                |        |
| <b>ARNESON 025-02W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ARNESON                                | 416   |                          |                         | 312  | 53  | 259  |   | 10 717                               |        |
| <b>ARTLAND 044-02W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ARTLAND                                | 271   |                          |                         | 182  |   | 182  |   | 6 812                                |        |
| <b>ARVILLA 058-20W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ARVILLA                                | 395   |                          |                         | 257  | 6   | 251  |   | 9 609                                |        |
| <b>ASHMONT 060-11W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 1 183   | 0.65                     | 0.05                    | 731  |   | 731  | 37  | 27 361                               | 21 610 |
| OTHER  | 1 136   |                          |                         | 728  | 176   | 552  |   | 21 050                               |        |
| TOTAL-ASHMONT                                | 2 319   |                          |                         | 1 459  | 176   | 1 283  |   | 48 411                               |        |
| <b>ASTOTIN 054-19W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ASTOTIN                                | 607   |                          |                         | 376  | 105   | 271  |   | 10 634                               |        |
| <b>ATHABASCA 066-23W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| GRAND RAPIDS B                               | 663   | 0.80                     | 0.05                    | 504  | 201   | 303  | 37  | 11 341                               | 2 155  |
| OTHER  | 1 281   |                          |                         | 855  | 223   | 632  |   | 23 478                               |        |
| TOTAL-ATHABASCA                              | 1 944   |                          |                         | 1 359  | 424   | 935  |   | 34 819                               |        |
| <b>ATHABASCA EAST 066-22W4</b>               |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ATHABASCA EAST                         | 1 878   |                          |                         | 1 236  | 452   | 784  |   | 30 766                               |        |
| <b>ATIM 054-26W4</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ATIM                                   | 53  |                          |                         | 42   | 42  |  |   |                                      |        |
| <b>ATLEE-BUFFALO 021-06W4</b>                |   |                          |                         |  |   |  |   |                                      |        |
| MILK RIVER A                                 | 8 271   | 0.70                     | 0.05                    | 5 500  |   |  | 36a   |                                      | 70 290 |
| MEDICINE HAT A                               | 3 637   | 0.70                     | 0.03                    | 2 470  |   |  | 36a   |                                      | 63 184 |
| MEDICINE HAT C                               | 23  | 0.50                     | 0.03                    | 11   |   |  | 36a   |                                      | 1 106  |
| MEDICINE HAT D                               | 45  | 0.50                     | 0.03                    | 22   |   |  | 36a   |                                      | 2 666  |
| SE ALTA GAS SYS (MU) TOTAL                   | 11 976  | 0.70                     | 0.05                    | 8 003  | 3 071   | 4 932  | 36a   | 179 081                              |        |
| VIKING H                                     | 811   | 0.85                     | 0.05                    | 654  | 540   | 114  | 37a   | 4 182                                | 11 372 |
| OTHER  | 3 771   |                          |                         | 2 545  | 310   | 2 235  |   | 82 026                               |        |
| TOTAL-ATLEE-BUFFALO                          | 16 558  |                          |                         | 11 202   | 3 921   | 7 281  |   | 265 289                              |        |
| <b>ATMORE 067-17W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| MCMURRAY A                                   | 687   | 0.80                     | 0.05                    | 522  | 121   | 401  | 37  | 14 861                               | 9 955  |
| MCMURRAY B                                   |   | 0.70                     | 0.05                    |  |   |  | 37  |                                      | 4 196  |
| NISKU A                                      |   | 0.70                     | 0.05                    |  |   |  | 37  |                                      | 1 828  |
| NISKU A & MCMURRAY B TOTAL                   | 1 774   | 0.70                     | 0.05                    | 1 180  | 730   | 450  | 37  | 16 677                               |        |
| OTHER  | 2 053   |                          |                         | 1 232  | 341   | 891  |   | 32 514                               |        |
| TOTAL-ATMORE                                 | 4 514   |                          |                         | 2 934  | 1 192   | 1 742  |   | 64 052                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20  |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                       |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |   |
| 57.69                       | 0.040    | 0.65        | 35 300              | 109  | 0.901    | 0.81                           | 4 121.7                    | 1981         | 1982                     |   |
| 1.03                        | 0.253    | 0.50        | 3 890               | 15   | 0.914    | 0.58                           | 420.1                      | 1949         | 1982                     | MIP PANALTA PWGE TCPL PART OF VIK POOL NO.6   |
| 3.41                        | 0.356    | 0.65        | 3 640               | 17   | 0.915    | 0.60                           | 491.6                      | 1952         | 1981                     | PWGE TCPL                                     |
| 4.65                        | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.58                           | 355.7                      | 1910         | 1983                     | PART OF MILK RIV POOL NO.1 PRODUCTION DECLINE |
| 1.33                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904         | 1982                     | PART OF MED HAT POOL NO.1                     |
| 0.53                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973         | 1982                     | PART OF MED HAT POOL NO.3                     |
| 0.43                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973         | 1982                     | PART OF MED HAT POOL NO.4                     |
| 1.39                        | 0.250    | 0.50        | 6 830               | 27   | 0.883    | 0.60                           | 782.6                      | 1904         | 1983                     | CWNGNUL MIP PANALTA PROGAS TCPL               |
|                             |          |             |                     |      |          |                                |                            | 1955         | 1982                     | TCPL MATERIAL BALANCE                         |
| 1.90                        | 0.228    | 0.60        | 2 610               | 22   | 0.947    | 0.57                           | 509.3                      | 1968         | 1983                     | PANALTA PROGAS TCPL                           |
| 1.66                        | 0.273    | 0.55        | 2 840               | 20   | 0.942    | 0.57                           | 520.7                      | 1960         | 1985                     | MATERIAL BALANCE                              |
| 6.58                        | 0.158    | 0.65        | 2 860               | 25   | 0.945    | 0.57                           | 508.2                      | 1967         | 1985                     | MATERIAL BALANCE                              |
|                             |          |             |                     |      |          |                                |                            | 1960         | 1985                     | TCPL  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE  | 1  | 2  | 3  | 4  | 5   | 6  | 7  | 8   | 9                                 |
|---|--|--|--|--|---|--|--|---|-----------------------------------|
|   | RAW GAS  |  |  | MARKETABLE GAS   |   |  |  |   | AREA                              |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup>    | POOL<br>RECOVERY<br>frac                                     | SURFACE<br>LOSS<br>frac                                      | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup>            | REMAINING<br>ENERGY<br>CONTENT<br>TJ          |                                   |
| <b>AUBURNDALE 047-06W4</b><br>TOTAL-AUBURNDALE  | 1 243  |  |  | 799  | 216   | 583  |  | 21 821  |                                   |
| <b>BADGER 016-18W4</b><br>UPPER MANNVILLE E<br>OTHER<br>TOTAL-BADGER  | 731<br>665<br>1 396  | 0.95   | 0.05   | 659<br>485<br>1 144  |   | 659<br>485<br>1 144  | 38   | 25 161<br>18 491<br>43 652                    | 150                               |
| <b>BALSAM 082-10W6</b><br>KISKATINAW A<br>OTHER<br>TOTAL-BALSAM   | 980<br>848<br>1 828  | 0.80   | 0.05   | 745<br>608<br>1 353  | 166<br>41<br>207  | 579<br>567<br>1 146  | 40   | 23 409<br>22 104<br>45 513                    | 1 020                             |
| <b>BANSHEE 050-22W5</b><br>LEDUC 14-050-22<br>TOTAL-BANSHEE   | 954<br>954   | 0.85   | 0.45   | 446<br>446   |   | 446<br>446   | 40   | 18 032<br>18 032                              | 200                               |
| <b>BANTRY 018-13W4</b><br>MILK RIVER A  | 8 992  | 0.70   | 0.05   | 5 980  |   |  | 36a  |   | 78 738                            |
| MEDICINE HAT A  | 5 015  | 0.70   | 0.03   | 3 410  |   |  | 36a  |   | 70 946                            |
| MEDICINE HAT C  | 1 886  | 0.50   | 0.03   | 915  |   |  | 36a  |   | 43 289                            |
| MEDICINE HAT D  | 124  | 0.50   | 0.03   | 60   |   |  | 36a  |   | 5 447                             |
| SE ALTA GAS SYS(MU) TOTAL   | 16 017   | 0.70   | 0.05   | 10 365   | 5 207   | 5 158  | 36a  | 187 287                                       |                                   |
| SECOND WHITE SPECKS A   | 2 316  | 0.75   | 0.05   | 1 650  | 581   | 1 069  | 36   | 38 815  | 31 685                            |
| VIKING U  | 514  | 0.75   | 0.05   | 366  |   |  | 36   |   | 4 074                             |
| VIKING V  | 39   | 0.70   | 0.05   | 26   |   |  | 36   |   | 200                               |
| VIKING W  | 23   | 0.70   | 0.05   | 15   |   |  | 36   |   | 200                               |
| BASAL COLORADO C  | 181  | 0.75   | 0.05   | 129  |   |  | 38a  |   | 1 328                             |
| VIKING T  | 6  | 0.75   | 0.05   | 5  |   |  | 36   |   | 200                               |
| VIK TUVW & BSL COLO C TOTAL   | 763  | 0.75   | 0.05   | 541  | 247   | 294  | 38a  | 11 116  |                                   |
| MANNVILLE A ASSOC   | 280  | 0.90   | 0.15   | 214  |   |  | 40   |   | 488                               |
| MANNVILLE A SOLN  | 2 960  | 0.25   | 0.50   | 370  |   |  | 40   |   |                                   |
| MANNVILLE A ASSOC   | 315  | 0.90   | 0.15   | 241  |   |  | 40   |   | 686                               |
| MANNVILLE A ASSOC   | 16   | 0.90   | 0.15   | 12   |   |  | 40   |   | 48                                |
| MANNVILLE A ASSOC   | 269  | 0.90   | 0.15   | 206  |   |  | 40   |   | 530                               |
| MANNVILLE A ASSOC   | 10   | 0.90   | 0.15   | 8  |   |  | 40   |   | 32                                |
| MANNVILLE A ASSOC   | 29   | 0.90   | 0.15   | 22   |   |  | 40   |   | 128                               |
| MANNVILLE A ASSOC   | 29   | 0.90   | 0.15   | 22   |   |  | 40   |   | 64                                |
| MANNVILLE A ASSOC   | 2  | 0.90   | 0.15   | 2  |   |  | 40   |   | 32                                |
| MANNVILLE A ASSOC   | 7  | 0.90   | 0.15   | 5  |   |  | 40   |   | 32                                |
| MANNVILLE A ASSOC   | 36   | 0.90   | 0.15   | 27   |   |  | 40   |   | 68                                |
| MANNVILLE A TOTAL   | 3 953  | 0.40   | 0.30   | 1 129  | 262   | 867  | 40   | 35 052  |                                   |
| OTHER   | 5 345  |  |  | 3 613  | 1 200   | 2 413  |  | 92 978  |                                   |
| TOTAL-BANTRY  | 28 394   |  |  | 17 298   | 7 497   | 9 801  |  | 365 248                                       |                                   |
| <b>BAPTISTE 067-22W4</b><br>MANNVILLE C<br>MANNVILLE G<br>MANNVILLE N<br>MANNVILLE O<br>MANNVILLE P<br>MANNVILLE C,G,N,O&P TOTAL<br>WABAMUN C<br>WABAMUN E<br>OTHER<br>TOTAL-BAPTISTE | 51<br>671<br>22<br>30<br>52<br>826<br>920<br>929<br>1 250<br>3 925 | 0.70<br>0.80<br>0.70<br>0.70<br>0.70<br>0.80<br>0.75<br>0.70 | 0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05 | 34<br>510<br>15<br>20<br>34<br>613<br>655<br>617<br>832<br>2 717     |   |  | 36<br>36<br>36<br>36<br>36<br>176<br>102<br>560<br>189 |   | 200<br>3 477<br>200<br>200<br>200 |
|   |  |  |  |  |   | 437<br>553<br>57<br>643<br>1 690                                       | 36<br>37<br>37   | 15 867<br>20 284<br>2 091<br>23 408<br>61 650 |                                   |
| <b>BARE (SA) 003-03W4</b><br>TOTAL-BARE   | 54   |  |  | 41   |   | 41   |  | 1 535   |                                   |
| <b>BARK (SA) 121-07W6</b><br>TOTAL-BARK   | 268  |  |  | 185  |   | 185  |  | 7 618   |                                   |
| <b>BARRHEAD 058-05W5</b><br>TOTAL-BARRHEAD  | 980  |  |  | 680  |   | 680  |  | 27 571  |                                   |
| <b>BARTMAN 025-09W4</b><br>TOTAL-BARTMAN  | 218  |  |  | 155  | 13  | 142  |  | 5 308   |                                   |
| <b>BASELINE 061-14W5</b><br>TOTAL-BASELINE  | 142  |  |  | 98   |   | 98   |  | 3 721   |                                   |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18                   | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|----------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>LAST<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                          |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |                      |                          |  |
| 12.80                       | 0.310    | 0.90        | 11 920              | 35   | 0.806    | 0.64                           | 1 098.6                    | 1980                 | 1985                     |  |
| 6.41                        | 0.125    | 0.75        | 17 200              | 77   | 0.875    | 0.63                           | 1 860.5                    | 1974                 | 1982                     | DOMEDOW TCPL                                     |
| 47.54                       | 0.044    | 0.85        | 42 040              | 166  | 1.015    | 0.85                           | 4 580.6                    | 1977                 | 1981                     | PANALTA BER                                      |
| 4.51                        | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.56                           | 355.7                      | 1910                 | 1983                     | PART OF MILK RIV POOL NO.1 PRODUCTION<br>DECLINE |
| 1.63                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904                 | 1978                     | PART OF MED HAT POOL NO.1                        |
| 1.11                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973                 | 1982                     | PART OF MED HAT POOL NO.3                        |
| 0.58                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973                 | 1982                     | PART OF MED HAT POOL NO.4                        |
| 0.94                        | 0.215    | 0.60        | 5 690               | 27   | 0.899    | 0.57                           | 630.0                      | 1904                 | 1983                     | CWNGNUL PANALTA TCPL                             |
| 1.95                        | 0.167    | 0.50        | 7 100               | 29   | 0.863    | 0.59                           | 795.2                      | 1939                 | 1981                     | TCPL PART OF 2WS POOL NO.1                       |
| 2.47                        | 0.140    | 0.70        | 7 380               | 27   | 0.873    | 0.59                           | 814.4                      | 1973                 | 1976                     |  |
| 1.85                        | 0.170    | 0.45        | 7 450               | 27   | 0.872    | 0.59                           | 830.0                      | 1973                 | 1982                     |  |
| 1.13                        | 0.200    | 0.65        | 8 550               | 30   | 0.867    | 0.62                           | 881.5                      | 1946                 | 1976                     |  |
| 0.61                        | 0.170    | 0.40        | 7 140               | 27   | 0.876    | 0.61                           | 807.6                      | 1973                 | 1984                     |  |
| 2.32                        | 0.265    | 0.70        | 10 780              | 30   | 0.760    | 0.73                           | 976.8                      | 1946                 | 1984                     | CWNGNUL TCPL                                     |
| 1.86                        | 0.265    | 0.70        | 10 780              | 30   | 0.760    | 0.73                           | 980.9                      | 1948                 | 1985                     |  |
| 1.37                        | 0.265    | 0.70        | 10 780              | 30   | 0.760    | 0.73                           | 989.2                      | 1948                 | 1985                     |  |
| 2.03                        | 0.265    | 0.70        | 10 910              | 30   | 0.759    | 0.73                           | 992.7                      | 1948                 | 1985                     |  |
| 1.22                        | 0.265    | 0.70        | 10 780              | 30   | 0.760    | 0.73                           | 997.3                      | 1948                 | 1985                     | ASSIGNED WELL 16-15-018-13 W4M                   |
| 0.91                        | 0.265    | 0.70        | 10 780              | 30   | 0.760    | 0.73                           | 993.1                      | 1948                 | 1985                     | ASSIGNED WELL 10-26-017-13 W4M                   |
| 1.83                        | 0.265    | 0.70        | 10 780              | 30   | 0.760    | 0.73                           | 990.6                      | 1948                 | 1985                     | ASSIGNED WELL 12-34-017-12 W4M                   |
| 0.30                        | 0.260    | 0.70        | 10 780              | 30   | 0.760    | 0.73                           | 989.2                      | 1948                 | 1985                     | ASSIGNED WELL 12-01-018-13 W4M                   |
| 0.92                        | 0.260    | 0.70        | 10 780              | 30   | 0.760    | 0.73                           | 989.3                      | 1948                 | 1985                     | ASSIGNED WELL 01-02-018-13 W4M                   |
| 2.06                        | 0.269    | 0.70        | 10 960              | 30   | 0.758    | 0.73                           | 997.3                      | 1948                 | 1985                     |  |
| 3.05                        | 0.350    | 0.65        | 3 610               | 24   | 0.932    | 0.56                           | 528.9                      | 1966                 | 1976                     |  |
| 3.23                        | 0.280    | 0.60        | 3 450               | 23   | 0.932    | 0.58                           | 424.3                      | 1966                 | 1982                     |  |
| 1.67                        | 0.270    | 0.65        | 3 560               | 17   | 0.925    | 0.56                           | 453.0                      | 1966                 | 1979                     |  |
| 1.83                        | 0.330    | 0.65        | 3 570               | 17   | 0.925    | 0.56                           | 456.8                      | 1966                 | 1979                     |  |
| 2.75                        | 0.330    | 0.75        | 3 570               | 17   | 0.925    | 0.56                           | 464.1                      | 1966                 | 1979                     |  |
| 9.31                        | 0.190    | 0.75        | 3 480               | 29   | 0.950    | 0.63                           | 601.1                      | 1966                 | 1982                     | TCPL   |
| 5.02                        | 0.150    | 0.70        | 3 520               | 29   | 0.933    | 0.57                           | 584.9                      | 1976                 | 1982                     | TCPL   |
|                             |          |             |                     |      |          |                                |                            | 1959                 | 1983                     | TCPL PRODUCTION DECLINE                          |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>BASHAW 042-22W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER C                                | 1 417   | 0.65                     | 0.05                    | 875  | 116   | 759  | 37  | 28 409                               | 14 600 |
| D-3 A SOLN                                   | 261   | 0.65                     | 0.45                    | 144 <sup>b</sup>   |   |  | 41 <sup>a</sup>                             |                                      |        |
| D-3 A ASSOC                                  | 437   | 0.85                     | 0.15                    | 316 <sup>b</sup>   | 197 <sup>b</sup>  | 263  | 41 <sup>a</sup>                             | 10 830                               | 1 125  |
| OTHER  | 5 317   |                          |                         | 3 391  | 914   | 2 477  |   | 98 902                               |        |
| TOTAL-BASHAW                                 | 7 432   |                          |                         | 4 726  | 1 227   | 3 499  |   | 138 141                              |        |
| <b>BASING 048-20W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TURNER VALLEY 048-20                         | 3 139   | 0.40                     | 0.10                    | 1 130  |   | 1 130  | 39  | 44 409                               | 2 481  |
| TURNER VALLEY 048-21                         | 1 425   | 0.40                     | 0.10                    | 513  |   | 513  | 41  | 20 930                               | 1 710  |
| OTHER  | 392   |                          |                         | 248  | 47  | 201  |   | 7 900                                |        |
| TOTAL-BASING                                 | 4 956   |                          |                         | 1 891  | 47  | 1 844  |   | 73 239                               |        |
| <b>BASSAND 021-18W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| MEDICINE HAT A                               | 616   | 0.70                     | 0.03                    | 418  |   |  | 36 <sup>a</sup>                             |                                      | 500    |
| SE ALTA GAS SYS (MU) TOTAL                   | 616   | 0.70                     | 0.05                    | 418  |   | 418  | 36 <sup>a</sup>                             | 15 178                               |        |
| OTHER  | 1 696   |                          |                         | 1 159  | 430   | 729  |   | 27 641                               |        |
| TOTAL-BASSAND                                | 2 312   |                          |                         | 1 577  | 430   | 1 147  |   | 42 819                               |        |
| <b>BATTLE 046-20W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BATTLE                                 | 97  |                          |                         | 57   |   | 57   |   | 2 133                                |        |
| <b>BATTLE SOUTH 045-20W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BATTLE SOUTH                           | 127   |                          |                         | 85   | 2   | 83   |   | 3 213                                |        |
| <b>BAXTER LAKE 047-05W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| MANNVILLE B                                  | 457   | 0.70                     | 0.05                    | 304  | 296   | 8  | 41  | 329                                  | 917    |
| OTHER  | 597   |                          |                         | 383  | 138   | 245  |   | 9 724                                |        |
| TOTAL-BAXTER LAKE                            | 1 054   |                          |                         | 687  | 434   | 253  |   | 10 053                               |        |
| <b>BEAR CANYON 082-12W6</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BEAR CANYON                            | 335   |                          |                         | 245  |   | 245  |   | 9 170                                |        |
| <b>BEARHILL LAKE (SA) 045-26W4</b>           |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BEARHILL LAKE                          | 72  |                          |                         | 48   |   | 48   |   | 1 922                                |        |
| <b>BEATON 088-02W6</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BEATON                                 | 1 188   |                          |                         | 787  | 448   | 339  |   | 12 723                               |        |
| <b>BEATTY LAKE (SA) 123-02W6</b>             |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BEATTY LAKE                            | 172   |                          |                         | 116  |   | 116  |   | 4 777                                |        |
| <b>BEAUVALLON 053-10W4</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| COLONY K                                     | 1 783   | 0.75                     | 0.05                    | 1 270  | 1 055   | 215  | 38 <sup>a</sup>                             | 8 123                                | 3 278  |
| COLONY L                                     | 640   | 0.65                     | 0.05                    | 395  | 384   | 11   | 38 <sup>a</sup>                             | 414                                  | 3 072  |
| COLONY P                                     | 591   | 0.75                     | 0.05                    | 421  | 59  | 362  | 37  | 13 550                               | 5 110  |
| OTHER  | 3 089   |                          |                         | 1 988  | 473   | 1 515  |   | 56 704                               |        |
| TOTAL-BEAUVALLON                             | 6 103   |                          |                         | 4 074  | 1 971   | 2 103  |   | 78 791                               |        |
| <b>BEAVER CROSSING 062-01W4</b>              |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BEAVR CROSSING                         | 111   |                          |                         | 62   | 21  | 41   |   | 1 535                                |        |
| <b>BEAVER LODGE 072-10W6</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BEAVR LODGE                            | 321   |                          |                         | 226  |   | 226  |   | 8 459                                |        |
| <b>BEAVERHILL LAKE 052-19W4</b>              |   |                          |                         |  |   |  |   |                                      |        |
| U, M & L VIKING A                            |   | 0.80                     | 0.03                    |  |   |  | 38 <sup>a</sup>                             |                                      |        |
| UPPER VIKING B                               |   | 0.80                     | 0.03                    |  |   |  | 38 <sup>a</sup>                             |                                      |        |
| UVIK AB, MVIK A & LVIK A TOTAL               | 6 186   | 0.80                     | 0.05                    | 4 800  | 3 810   | 990  | 38 <sup>a</sup>                             | 37 432                               | 5 238  |
| OTHER  | 2 451   |                          |                         | 1 590  | 256   | 1 334  |   | 50 432                               |        |
| TOTAL-BEAVR HILL LAKE                        | 8 637   |                          |                         | 6 390  | 4 066   | 2 324  |   | 87 864                               |        |
| <b>BELLIS 059-15W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE B                            | 942   | 0.80                     | 0.05                    | 716  | 518   | 198  | 38  | 7 560                                | 4 387  |
| UPPER MANNVILLE E                            |   | 0.75                     | 0.05                    |  |   |  | 38  |                                      | 2 338  |
| UPPER MANNVILLE F                            |   | 0.75                     | 0.05                    |  |   |  | 38  |                                      | 1 531  |
| UPPER MANNVILLE G                            |   | 0.75                     | 0.05                    |  |   |  | 38  |                                      | 1 177  |
| UPPER MANNVILLE H                            |   | 0.75                     | 0.05                    |  |   |  | 38  |                                      | 200    |
| U, MANN E, F, G & H TOTAL                    | 1 200   | 0.75                     | 0.05                    | 855  | 679   | 176  | 38  | 6 720                                |        |
| NISKU A                                      | 1 252   | 0.60                     | 0.05                    | 713  | 82  | 631  | 37  | 23 618                               | 3 090  |
| NISKU C                                      | 507   | 0.71                     | 0.05                    | 342  | 202   | 140  | 37  | 5 240                                | 1 282  |
| OTHER  | 4 681   |                          |                         | 2 889  | 869   | 2 020  |   | 76 297                               |        |
| TOTAL-BELLIS                                 | 8 582   |                          |                         | 5 515  | 2 350   | 3 165  |   | 119 435                              |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20                                     |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | LUMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | CONSIDERATION AND REMARKS              |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |  |
| 3.69                        | 0.250    | 0.40        | 2 020               | 22   | 0.960    | 0.56                           | 491.1                      | 1977         | 1985                     | PANALTA TCPL PART OF BR POOL NO. 1     |
| 5.22                        | 0.054    | 0.85        | 16 060              | 60   | 0.846    | 0.78                           | 1 754.7                    | 1951         | 1982                     | TCPL CONCURRENT PRODUCTION             |
|                             |          |             |                     |      |          |                                |                            |              |                          | TCPL CONCURRENT PRODUCTION             |
| 9.92                        | 0.064    | 0.85        | 33 630              | 123  | 1.030    | 0.64                           | 3 919.2                    | 1975         | 1984                     | PANALTA TOP/BASE TVD                   |
| 9.51                        | 0.045    | 0.80        | 32 000              | 119  | 1.006    | 0.61                           | 3 802.4                    | 1978         | 1984                     | PANALTA TCPL TOP/BASE TVD              |
| 1.66                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904         | 1982                     | PART OF MED HAT POOL NO. 1             |
|                             |          |             |                     |      |          |                                |                            | 1904         | 1983                     | PANALTA TCPL                           |
| 2.60                        | 0.261    | 0.70        | 4 560               | 24   | 0.915    | 0.62                           | 703.1                      | 1975         | 1984                     | PANALTA TCPL PRODUCTION DECLINE        |
| 4.56                        | 0.280    | 0.75        | 4 260               | 21   | 0.915    | 0.57                           | 564.4                      | 1973         | 1985                     | CWNGNUL PANALTA MATERIAL BALANCE       |
| 3.98                        | 0.284    | 0.75        | 3 590               | 19   | 0.925    | 0.57                           | 533.1                      | 1976         | 1985                     | PANALTA TCPL TCPL MATERIAL BALANCE     |
| 1.82                        | 0.280    | 0.60        | 3 560               | 17   | 0.923    | 0.58                           | 482.9                      | 1972         | 1985                     | PANALTA PROGAS TCPL                    |
| 0.94                        | 0.210    | 0.60        | 5 550               | 33   | 0.901    | 0.61                           | 776.7                      | 1917         | 1982                     | PART OF VIK POOL NO.2 MATERIAL BALANCE |
|                             | 0.200    | 0.65        | 4 800               | 26   | 0.898    | 0.60                           | 765.3                      | 1952         | 1984                     | PART OF VIK POOL NO.2 MATERIAL BALANCE |
|                             |          |             |                     |      |          |                                |                            | 1917         | 1982                     | CWNGNUL TCPL PART OF VIK POOL NO.2     |
| 2.21                        | 0.270    | 0.45        | 4 070               | 22   | 0.912    | 0.59                           | 504.6                      | 1965         | 1983                     | TCPL PANALTA MATERIAL BALANCE          |
| 2.12                        | 0.300    | 0.65        | 3 450               | 22   | 0.932    | 0.59                           | 528.2                      | 1963         | 1982                     | PRODUCTION DECLINE                     |
| 1.51                        | 0.312    | 0.35        | 3 700               | 20   | 0.929    | 0.58                           | 538.5                      | 1969         | 1983                     | PRODUCTION DECLINE                     |
| 2.12                        | 0.300    | 0.55        | 3 860               | 27   | 0.925    | 0.58                           | 550.2                      | 1969         | 1982                     | PRODUCTION DECLINE                     |
| 2.78                        | 0.300    | 0.55        | 4 070               | 20   | 0.917    | 0.58                           | 568.9                      | 1969         | 1982                     | PRODUCTION DECLINE                     |
| 8.73                        | 0.204    | 0.60        | 3 650               | 22   | 0.928    | 0.57                           | 635.8                      | 1963         | 1985                     | TCPL                                   |
| 9.11                        | 0.120    | 0.50        | 3 850               | 24   | 0.926    | 0.57                           | 613.8                      | 1965         | 1983                     | PANALTA TCPL                           |
|                             |          |             |                     |      |          |                                |                            | 1976         | 1985                     | TCPL PRODUCTION DECLINE                |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>BELLOY 078-01W6</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| CADOTTE A                                    | 586   | 0.75                     | 0.05                    | 418  | 61  | 357  | 37  | 13 095                               | 3 900 |
| NOTIKEWIN A                                  | 1 209   | 0.75                     | 0.05                    | 861  | 294   | 567  | 37  | 20 798                               | 1 210 |
| DEBOLT B                                     | 494   | 0.80                     | 0.10                    | 356  | 103   | 253  | 39  | 9 943                                | 890   |
| OTHER  | 2 188   |                          |                         | 1 533  | 433   | 1 100  |   | 41 230                               |       |
| TOTAL-BELLOY                                 | 4 477   |                          |                         | 3 168  | 891   | 2 277  |   | 85 066                               |       |
| <b>BELLSHILL LAKE 041-12W4</b>               |   |                          |                         |  |   |  |   |                                      |       |
| BLAIRMORE ASSOC                              | 110   | 0.70                     | 0.20                    | 62   |   |  | 37  |                                      | 255   |
| BLAIRMORE SOLN                               | 1 169   | 0.65                     | 0.50                    | 380  |   |  | 37  |                                      |       |
| BLAIRMORE ASSOC                              | 6   | 0.70                     | 0.20                    | 3  |   |  | 37  |                                      | 37    |
| BLAIRMORE TOTAL                              | 1 285   | 0.65                     | 0.45                    | 445  | 52  | 393  | 37  | 14 710                               |       |
| OTHER  | 456   |                          |                         | 308  | 94  | 214  |   | 8 093                                |       |
| TOTAL-BELLSHILL LAKE                         | 1 741   |                          |                         | 753  | 146   | 607  |   | 22 803                               |       |
| <b>BENJAMIN 028-07W5</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| RUNDLE A                                     | 1 809   | 0.65                     | 0.15                    | 1 000  |   | 1 000  | 40  | 40 050                               | 1 008 |
| RUNDLE B                                     | 1 865   | 0.65                     | 0.15                    | 1 030  | 60  | 970  | 40  | 38 849                               | 883   |
| RUNDLE C                                     | 1 597   | 0.65                     | 0.20                    | 830  | 10  | 820  | 40  | 32 841                               | 440   |
| TOTAL-BENJAMIN                               | 5 271   |                          |                         | 2 860  | 70  | 2 790  |   | 111 740                              |       |
| <b>BENTLEY 058-07W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BENTLEY                                | 76  |                          |                         | 45   |   | 45   |   | 1 700                                |       |
| <b>BENTON 028-03W4</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BENTON                                 | 421   |                          |                         | 296  | 70  | 226  |   | 8 792                                |       |
| <b>BERLAND RIVER 059-23W5</b>                |   |                          |                         |  |   |  |   |                                      |       |
| LEDUC A                                      | 3 852   | 0.90                     | 0.25                    | 2 600  | 792   | 1 808  | 37  | 67 004                               | 280   |
| TOTAL-BERLAND RIVER                          | 3 852   |                          |                         | 2 600  | 792   | 1 808  |   | 67 004                               |       |
| <b>BERLAND RIVER WEST 058-25W5</b>           |   |                          |                         |  |   |  |   |                                      |       |
| WABAMUN 10-058-25                            | 671   | 0.80                     | 0.15                    | 456  |   | 456  | 38  | 17 410                               | 440   |
| WABAMUN 26-058-25                            | 423   | 0.80                     | 0.05                    | 321  |   | 321  | 38  | 12 256                               | 200   |
| OTHER  | 100   |                          |                         | 67   |   | 67   |   | 2 508                                |       |
| TOTAL-BERLAND RIVER WEST                     | 1 194   |                          |                         | 844  |   | 844  |   | 32 174                               |       |
| <b>BERRY 027-12W4</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BERRY                                  | 3 006   |                          |                         | 2 088  | 242   | 1 846  |   | 70 196                               |       |
| <b>BESSIE 062-15W5</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BESSIE                                 | 50  |                          |                         | 36   |   | 36   |   | 1 482                                |       |
| <b>BIG ARROW 099-05W6</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BIG ARROW                              | 87  |                          |                         | 56   |   | 56   |   | 2 243                                |       |
| <b>BIG BEND 066-27W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| GRAND RAPIDS Q                               | 601   | 0.90                     | 0.05                    | 514  | 463   | 51   | 37  | 1 890                                | 437   |
| MCMURRAY H                                   | 765   | 0.75                     | 0.05                    | 545  | 456   | 89   | 37  | 3 298                                | 3 537 |
| MCMURRAY B                                   |   | 0.65                     | 0.05                    |  |   |  | 37  |                                      | 1 831 |
| MCMURRAY II                                  |   | 0.65                     | 0.05                    |  |   |  | 37  |                                      | 425   |
| WABAMUN F                                    |   | 0.65                     | 0.05                    |  |   |  | 37  |                                      | 128   |
| MCMURRAY B,II & WAB F TOTAL                  | 585   | 0.65                     | 0.05                    | 361  | 267   | 94   | 37  | 3 484                                |       |
| WABAMUN A                                    | 1 017   | 0.75                     | 0.05                    | 724  | 197   | 527  | 37  | 19 726                               | 1 666 |
| OTHER  | 10 180  |                          |                         | 6 497  | 2 166   | 4 331  |   | 160 993                              |       |
| TOTAL-BIG BEND                               | 13 148  |                          |                         | 8 641  | 3 549   | 5 092  |   | 189 391                              |       |
| <b>BIG COULEE 067-23W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BIG COULEE                             | 913   |                          |                         | 580  | 133   | 447  |   | 16 754                               |       |
| <b>BIG MEADOW (SA) 062-05W4</b>              |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BIG MEADOW                             | 62  |                          |                         | 33   |   | 33   |   | 1 210                                |       |
| <b>BIGHORN 043-17W5</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BIGHORN                                | 690   |                          |                         | 481  |   | 481  |   | 18 004                               |       |
| <b>BIGORAY 051-08W5</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| GLAUCONITIC I                                | 1 456   | 0.65                     | 0.06                    | 890  | 55  | 835  | 42  | 35 321                               | 2 496 |
| PEKISKO A SOLN                               | 206   | 0.60                     | 0.10                    | 111b   |   |  | 41  |                                      |       |
| PEKISKO A ASSOC                              | 1 481   | 0.90                     | 0.10                    | 1 200b   | 987b  | 324  | 41  | 13 219                               | 4 956 |
| OTHER  | 4 938   |                          |                         | 2 651  | 167   | 2 484  |   | 103 400                              |       |
| TOTAL-BIGORAY                                | 8 081   |                          |                         | 4 852  | 1 209   | 3 643  |   | 151 940                              |       |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20                          |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|-----------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS     |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |                             |
| 2.54                        | 0.270    | 0.70        | 3 120               | 25   | 0.950    | 0.56                           | 517.8                      | 1951         | 1982                     | A&S TCPL                    |
| 2.87                        | 0.270    | 0.60        | 4 650               | 27   | 0.917    | 0.56                           | 569.2                      | 1951         | 1979                     | A&S MATERIAL BALANCE        |
| 7.41                        | 0.200    | 0.75        | 14 400              | 60   | 0.846    | 0.63                           | 1 444.9                    | 1951         | 1981                     | A&S MATERIAL BALANCE        |
| 3.03                        | 0.278    | 0.70        | 6 510               | 30   | 0.834    | 0.78                           | 900.3                      | 1956         | 1984                     |                             |
| 1.11                        | 0.278    | 0.70        | 6 510               | 30   | 0.834    | 0.78                           | 903.3                      | 1956         | 1984                     |                             |
|                             |          |             |                     |      |          |                                |                            | 1956         | 1984                     | KANNGAZ TCPL                |
| 18.91                       | 0.055    | 0.75        | 28 000              | 92   | 0.948    | 0.67                           | 3 336.8                    | 1969         | 1985                     | PANALTA PROGAS TOP/BASE TVD |
| 23.40                       | 0.053    | 0.75        | 27 400              | 92   | 0.940    | 0.67                           | 3 296.1                    | 1961         | 1984                     | PANALTA TOP/BASE TVD        |
| 36.00                       | 0.057    | 0.75        | 28 900              | 92   | 0.955    | 0.69                           | 3 495.0                    | 1978         | 1984                     | PANALTA PROGAS TOP/BASE TVD |
| 65.60                       | 0.072    | 0.90        | 36 450              | 121  | 1.000    | 0.68                           | 3 762.9                    | 1958         | 1984                     | TCPL MATERIAL BALANCE       |
| 21.87                       | 0.036    | 0.80        | 33 090              | 127  | 0.980    | 0.70                           | 3 724.0                    | 1958         | 1973                     | TCPL BER                    |
| 12.00                       | 0.084    | 0.85        | 33 000              | 104  | 1.009    | 0.59                           | 3 618.0                    | 1980         | 1981                     | TCPL BER                    |
| 4.70                        | 0.250    | 0.60        | 4 620               | 21   | 0.905    | 0.57                           | 600.6                      | 1967         | 1981                     | TCPL PRODUCTION DECLINE     |
| 1.82                        | 0.220    | 0.55        | 4 930               | 27   | 0.898    | 0.61                           | 799.4                      | 1967         | 1979                     | TCPL MATERIAL BALANCE       |
| 2.18                        | 0.222    | 0.55        | 5 000               | 30   | 0.903    | 0.59                           | 801.3                      | 1968         | 1983                     | PRODUCTION DECLINE          |
| 1.83                        | 0.253    | 0.60        | 5 000               | 29   | 0.900    | 0.60                           | 799.8                      | 1968         | 1983                     | PRODUCTION DECLINE          |
| 6.10                        | 0.190    | 0.70        | 4 710               | 36   | 0.914    | 0.61                           | 802.9                      | 1976         | 1983                     | PRODUCTION DECLINE          |
| 6.98                        | 0.214    | 0.80        | 5 000               | 35   | 0.906    | 0.61                           | 811.7                      | 1967         | 1976                     | TCPL                        |
| 5.74                        | 0.126    | 0.55        | 13 500              | 58   | 0.791    | 0.67                           | 1 813.0                    | 1958         | 1984                     | A&S PART OF GLAUC POOL NO.5 |
| 5.20                        | 0.060    | 0.60        | 15 160              | 58   | 0.816    | 0.67                           | 1 832.3                    | 1965         | 1985                     | A&S CONCURRENT PRODUCTION   |
|                             |          |             |                     |      |          |                                |                            | 1965         | 1985                     | A&S CONCURRENT PRODUCTION   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>BIGSTONE 061-22W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| DUNVEGAN A                                   | 4 772   | 0.75                     | 0.05                    | 3 400  | 180   | 3 220  | 43  | 137 397                              | 5 422  |
| D-3 A  | 13 809  | 0.42                     | 0.30                    | 4 060  | 3 640   | 420  | 37a   | 15 406                               | 2 331  |
| OTHER  | 862   |                          |                         | 533  |   | 533  |   | 20 571                               |        |
| TOTAL-BIGSTONE                               | 19 443  |                          |                         | 7 993  | 3 820   | 4 173  |   | 173 374                              |        |
| <b>BILAWCHUK 080-09W6</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BILAWCHUK                              | 382   |                          |                         | 270  |   | 270  |   | 10 415                               |        |
| <b>BILBO 065-08W6</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BILBO                                  | 3 097   |                          |                         | 2 116  |   | 2 116  |   | 83 266                               |        |
| <b>BINDLOSS 023-04W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| MILK RIVER A                                 | 1 519   | 0.70                     | 0.05                    | 1 010  |   |  | 36a   |                                      | 19 140 |
| MEDICINE HAT A                               | 549   | 0.70                     | 0.03                    | 372  |   |  | 36a   |                                      | 22 821 |
| MEDICINE HAT D                               | 6   | 0.50                     | 0.03                    | 3  |   |  | 36a   |                                      | 383    |
| SE ALTA GAS SYS (MU) TOTAL                   | 2 074   | 0.70                     | 0.05                    | 1 385  | 284   | 1 101  | 36a   | 39 977                               |        |
| VIKING A                                     | 10 774  | 0.90                     | 0.01                    | 9 600  | 7 537   | 2 063  | 37a   | 76 455                               | 18 120 |
| LOWER MANNVILLE C                            | 716   | 0.90                     | 0.05                    | 614  | 36  | 578  | 37  | 21 421                               | 405    |
| OTHER  | 723   |                          |                         | 493  | 89  | 404  |   | 14 972                               |        |
| TOTAL-BINDLOSS                               | 14 287  |                          |                         | 12 092   | 7 946   | 4 146  |   | 152 825                              |        |
| <b>BIRCH 050-11W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE R                            | 477   | 0.80                     | 0.05                    | 363  | 109   | 254  | 37  | 9 507                                | 807    |
| CAMROSE B                                    | 896   | 0.90                     | 0.05                    | 766  | 589   | 177  | 37a   | 6 560                                | 5 784  |
| OTHER  | 2 837   |                          |                         | 1 893  | 287   | 1 606  |   | 60 365                               |        |
| TOTAL-BIRCH                                  | 4 210   |                          |                         | 3 022  | 985   | 2 037  |   | 76 432                               |        |
| <b>BISON LAKE 095-15W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BISON LAKE                             | 329   |                          |                         | 209  |   | 209  |   | 8 861                                |        |
| <b>BISTCHO 122-04W6</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BISTCHO                                | 214   |                          |                         | 147  |   | 147  |   | 6 032                                |        |
| <b>BITTERN LAKE 046-22W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| GLAUCONITIC A                                | 1 060   | 0.70                     | 0.05                    | 705  | 705   | 40   | 40  | -                                    | 1 497  |
| GLAUCONITIC J                                | 520   | 0.75                     | 0.05                    | 371  | 67  | 304  | 40  | 12 175                               | 200    |
| ELLERSLIE A                                  | 403   | 0.85                     | 0.05                    | 327  |   | 327  | 40  | 13 096                               | 947    |
| OTHER  | 2 204   |                          |                         | 1 494  | 292   | 1 202  |   | 47 377                               |        |
| TOTAL-BITTERN LAKE                           | 4 187   |                          |                         | 2 897  | 1 064   | 1 833  |   | 72 648                               |        |
| <b>BLACK 110-09W6</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BLACK                                  | 1 452   |                          |                         | 975  |   | 975  |   | 40 047                               |        |
| <b>BLACK BUTTE 001-08W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| SUNBURST-SWIFT A                             | 469   | 0.80                     | 0.04                    | 360  | 308   | 52   | 37  | 1 946                                | 824    |
| SAWTOOTH A                                   | 900   | 0.82                     | 0.05                    | 701  | 608   | 93   | 37  | 3 481                                | 1 660  |
| RUNDLE A                                     | 1 105   | 0.80                     | 0.10                    | 796  | 391   | 405  | 38  | 15 463                               | 1 230  |
| OTHER  | 1 083   |                          |                         | 802  | 563   | 239  |   | 8 886                                |        |
| TOTAL-BLACK BUTTE                            | 3 557   |                          |                         | 2 659  | 1 870   | 789  |   | 29 776                               |        |
| <b>BLACK DIAMOND 020-02W5</b>                |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BLACK DIAMOND                          | 346   |                          |                         | 47   | 41  | 6  |   | 247                                  |        |
| <b>BLACKFALDS (SA) 040-27W4</b>              |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BLACKFALDS                             | 39  |                          |                         | 25   |   | 25   |   | 961                                  |        |
| <b>BLACKFOOT 022-23W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BLACKFOOT                              | 316   |                          |                         | 213  | 86  | 127  |   | 4 779                                |        |
| <b>BLACKSTONE 045-16W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM SD 26-044-16                         | 439   | 0.85                     | 0.10                    | 336  |   | 336  | 40  | 13 474                               | 200    |
| BEAVERHILL LAKE A                            | 18 332  | 0.80                     | 0.25                    | 11 000   | 114   | 10 886   | 38  | 411 600                              | 3 723  |
| OTHER  | 642   |                          |                         | 441  |   | 441  |   | 17 371                               |        |
| TOTAL-BLACKSTONE                             | 19 413  |                          |                         | 11 777   | 114   | 11 663   |   | 442 445                              |        |
| <b>BLANSKY (SA) 001-02W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BLANSKY                                | 65  |                          |                         | 49   |   | 49   |   | 1 834                                |        |
| <b>BLOOD 007-23W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| BOW ISLAND A                                 | 885   | 0.60                     | 0.05                    | 504  | 80  | 424  | 38  | 16 031                               | 2 157  |
| OTHER  | 36  |                          |                         | 17   |   | 17   |   | 643                                  |        |



| 10                          | 11                      | 12                   | 13                      | 14             | 15                      | 16                             | 17                            | 18                   | 19                       | 20   |
|-----------------------------|-------------------------|----------------------|-------------------------|----------------|-------------------------|--------------------------------|-------------------------------|----------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE     | TEMP           | COMPRESS                | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH    | DISC<br>YEAR         | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS  |
| m                           | frac                    | frac                 | kPa                     | °C             | frac                    | frac                           | m                             |                      |                          |  |
| 5.04<br>17.47               | 0.154<br>0.080          | 0.55<br>0.85         | 17 930<br>32 650        | 60<br>116      | 0.792<br>0.975          | 0.65<br>0.70                   | 1 976.0<br>3 383.4            | 1959<br>1960         | 1982<br>1984             | A&S PROGAS<br>A&S PRODUCTION DECLINE   |
| 3.13<br>0.55<br>0.40        | 0.154<br>0.170<br>0.139 | 0.55<br>0.55<br>0.60 | 3 140<br>4 310<br>4 450 | 16<br>17<br>19 | 0.938<br>0.913<br>0.921 | 0.58<br>0.57<br>0.57           | 355.7<br>487.7<br>487.7       | 1910<br>1904<br>1973 | 1983<br>1978<br>1982     | PART OF MILK RIV POOL NO.1 PRODUCTION<br>DECLINE<br>PART OF MED HAT POOL NO.1<br>PART OF MED HAT POOL NO.4 |
| 3.43<br>5.18                | 0.294<br>0.233          | 0.55<br>0.60         | 6 830<br>10 100         | 27<br>30       | 0.881<br>0.846          | 0.59<br>0.59                   | 685.5<br>843.7                | 1952<br>1954         | 1984<br>1967             | PANALTA TCPL<br>TCPL MATERIAL BALANCE<br>TCPL  |
| 5.22<br>3.19                | 0.289<br>0.101          | 0.75<br>0.65         | 5 040<br>4 760          | 28<br>27       | 0.911<br>0.912          | 0.58<br>0.58                   | 656.5<br>714.2                | 1978<br>1961         | 1984<br>1984             | TCPL<br>TCPL MATERIAL BALANCE  |
| 5.84<br>11.90<br>3.46       | 0.251<br>0.270<br>0.190 | 0.60<br>0.89<br>0.65 | 9 030<br>8 440<br>9 310 | 46<br>37<br>46 | 0.857<br>0.816<br>0.830 | 0.64<br>0.61<br>0.68           | 1 220.5<br>1 189.5<br>1 261.9 | 1956<br>1977<br>1954 | 1984<br>1983<br>1967     | TCPL   |
| 5.77<br>2.58<br>5.98        | 0.200<br>0.200<br>0.100 | 0.70<br>0.70<br>0.80 | 7 100<br>8 100<br>8 260 | 30<br>33<br>33 | 0.874<br>0.862<br>0.869 | 0.60<br>0.61<br>0.62           | 906.2<br>994.6<br>1 001.8     | 1944<br>1944<br>1944 | 1984<br>1981<br>1979     | CMG PRODUCTION DECLINE<br>CMG PRODUCTION DECLINE<br>CMG MATERIAL BALANCE                                   |
| 16.50<br>23.32              | 0.123<br>0.084          | 0.55<br>0.89         | 21 740<br>45 200        | 81<br>140      | 0.888<br>1.102          | 0.64<br>0.72                   | 2 777.8<br>4 737.4            | 1979<br>1979         | 1980<br>1984             | TCPL   |
| 10.40                       | 0.155                   | 0.75                 | 3 410                   | 33             | 0.934                   | 0.63                           | 1 011.6                       | 1978                 | 1985                     | PANALTA  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>BLOOD 007-23W4 (CONTINUED)</b>            |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BLOOD                                  | 921   |                          |                         | 521  | 80  | 441  |   | 16 674                               |       |
| <b>BLOOR 033-12W4</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BLOOR                                  | 282   |                          |                         | 193  | 8   | 185  |   | 7 008                                |       |
| <b>BLUEBERRY 082-07W6</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| BELLOY 16-082-07                             | 454   | 0.90                     | 0.05                    | 388  |   | 388  | 37  | 14 523                               | 200   |
| KISKATINAW A                                 | 1 139   | 0.80                     | 0.05                    | 865  | 365   | 500  | 37  | 18 715                               | 200   |
| OTHER  | 223   |                          |                         | 154  |   | 154  |   | 5 725                                |       |
| TOTAL-BLUEBERRY                              | 1 816   |                          |                         | 1 407  | 365   | 1 042  |   | 38 963                               |       |
| <b>BLUERIDGE 059-10W5</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| JURASSIC A                                   | 748   | 0.60                     | 0.10                    | 404  | 206   | 198  | 41  | 8 154                                | 200   |
| JURASSIC B                                   | 2 639   | 0.80                     | 0.10                    | 1 900  | 966   | 934  | 41  | 38 462                               | 3 967 |
| PEKISK0 A SOLN                               | 79  | 0.60                     | 0.10                    | 43b  |   |  | 42  |                                      |       |
| PEKISK0 A ASSOC                              | 961   | 0.90                     | 0.10                    | 778b   | 452b  | 369  | 42  | 15 609                               | 1 599 |
| OTHER  | 932   |                          |                         | 607  | 10  | 597  |   | 24 975                               |       |
| TOTAL-BLUERIDGE                              | 5 359   |                          |                         | 3 732  | 1 634   | 2 098  |   | 87 200                               |       |
| <b>BOHN (SA) 081-07W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BOHN                                   | 92  |                          |                         | 44   |   | 44   |   | 1 894                                |       |
| <b>BOLLOQUE 064-26W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| LOWER MANNVILLE A                            | 894   | 0.70                     | 0.05                    | 594  | 481   | 113  | 37  | 4 188                                | 2 631 |
| LOWER MANNVILLE B                            | 583   | 0.80                     | 0.05                    | 443  | 101   | 342  | 37  | 12 675                               | 1 161 |
| OTHER  | 1 548   |                          |                         | 991  | 61  | 930  |   | 34 673                               |       |
| TOTAL-BOLLOQUE                               | 3 025   |                          |                         | 2 028  | 643   | 1 385  |   | 51 536                               |       |
| <b>BOLTAN (SA) 060-02W6</b>                  |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BOLTAN                                 | 187   |                          |                         | 129  |   | 129  |   | 4 829                                |       |
| <b>BONANZA 081-12W6</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| HALFWAY A                                    | 458   | 0.85                     | 0.15                    | 330  |   | 330  | 37  | 12 352                               | 1 222 |
| OTHER  | 713   |                          |                         | 501  |   | 501  |   | 18 716                               |       |
| TOTAL-BONANZA                                | 1 171   |                          |                         | 831  |   | 831  |   | 31 068                               |       |
| <b>BONDISS 064-15W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BONDISS                                | 185   |                          |                         | 118  | 29  | 89   |   | 3 331                                |       |
| <b>BONNIE GLEN 047-27W4</b>                  |   |                          |                         |  |   |  |   |                                      |       |
| GLAUCONITIC A                                | 2 627   | 0.85                     | 0.10                    | 2 010  | 31  | 1 979  | 45  | 89 273                               | 2 937 |
| D-3 A SOLN                                   | 17 625  | 0.80                     | 0.25                    | 10 575b  |   |  | 46a   |                                      |       |
| D-3 A ASSOC                                  | 14 212  | 0.90                     | 0.14                    | 11 000b  | 5 455b  | 16 120   | 46a   | 736 200                              | 1 312 |
| OTHER  | 1 461   |                          |                         | 934  | 335   | 599  |   | 24 411                               |       |
| TOTAL-BONNIE GLEN                            | 35 925  |                          |                         | 24 519   | 5 821   | 18 698   |   | 849 884                              |       |
| <b>BONNYVILLE 060-05W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| COLDNY B                                     | 371   | 0.80                     | 0.05                    | 304  | 235   | 69   | 37  | 2 531                                | 1 483 |
| OTHER  | 406   |                          |                         | 240  | 133   | 107  |   | 3 926                                |       |
| TOTAL-BONNYVILLE                             | 777   |                          |                         | 544  | 368   | 176  |   | 6 457                                |       |
| <b>BORDER 042-05W4</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BORDER                                 | 86  |                          |                         | 51   |   | 51   |   | 1 906                                |       |
| <b>BORRADAILE 051-05W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BORRADAILE                             | 88  |                          |                         | 56   |   | 56   |   | 1 992                                |       |
| <b>BOTHA 098-05W6</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| DEBOLT A ASSOC                               | 446   | 0.85                     | 0.05                    | 360  |   | 360  | 40  | 14 418                               | 3 746 |
| OTHER  | 198   |                          |                         | 133  |   | 133  |   | 5 117                                |       |
| TOTAL-BOTHA                                  | 644   |                          |                         | 493  |   | 493  |   | 19 535                               |       |
| <b>BOTTREL 028-05W5</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BOTTREL                                | 414   |                          |                         | 287  |   | 287  |   | 10 742                               |       |
| <b>BOUCHER 079-04W6</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-BOUCHER                                | 25  |                          |                         | 19   |   | 19   |   | 761                                  |       |
| <b>BOUNDARY LAKE SOUTH 084-12W6</b>          |   |                          |                         |  |   |  |   |                                      |       |
| TRIASSIC E SOLN                              | 947   | 0.40                     | 0.10                    | 341  | 328   | 13   | 39  | 511                                  |       |
| TRIASSIC G                                   | 939   | 0.80                     | 0.10                    | 676  | 400   | 276  | 39  | 10 847                               | 3 278 |
| KISKATINAW E                                 | 1 020   | 0.85                     | 0.05                    | 824  | 779   | 45   | 40  | 1 819                                | 896   |



| 10                          | 11             | 12           | 13                  | 14       | 15             | 16                             | 17                         | 18                   | 19                       | 20   |
|-----------------------------|----------------|--------------|---------------------|----------|----------------|--------------------------------|----------------------------|----------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY       | GAS<br>SATN  | INITIAL<br>PRESSURE | TEMP     | COMPRESS       | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR         | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS  |
| m                           | frac           | frac         | kPa                 | °C       | frac           | frac                           | m                          |                      |                          |  |
| 10.49<br>9.87               | 0.200<br>0.130 | 0.75<br>0.70 | 14 480<br>15 380    | 63<br>64 | 0.850<br>0.850 | 0.62<br>0.63                   | 1 444.4<br>1 581.9         | 1973<br>1973         | 1977<br>1985             | TCPL BER<br>TCPL MATERIAL BALANCE  |
| 7.05<br>3.95                | 0.208<br>0.171 | 0.60<br>0.65 | 12 540<br>12 450    | 66<br>65 | 0.853<br>0.846 | 0.65<br>0.66<br>0.65           | 1 672.8<br>1 722.5         | 1957<br>1967<br>1968 | 1985<br>1985<br>1982     | TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL CONCURRENT PRODUCTION OIL DEPLETED<br>TCPL CONCURRENT PRODUCTION OIL DEPLETED |
| 5.81                        | 0.127          | 0.65         | 12 550              | 64       | 0.845          | 0.65                           | 1 729.9                    | 1968                 | 1982                     |  |
| 3.20<br>3.77                | 0.227<br>0.300 | 0.70<br>0.80 | 5 450<br>5 380      | 29<br>33 | 0.893<br>0.900 | 0.60<br>0.59                   | 868.5<br>863.9             | 1965<br>1973         | 1983<br>1980             | TCPL MATERIAL BALANCE<br>TCPL  |
| 2.45                        | 0.122          | 0.75         | 14 520              | 60       | 0.742          | 0.84                           | 1 482.7                    | 1973                 | 1984                     | PANALTA BER  |
| 8.86<br>66.08               | 0.120<br>0.104 | 0.60<br>0.94 | 12 450<br>16 820    | 47<br>80 | 0.789<br>0.808 | 0.70<br>0.79<br>0.79           | 1 558.3<br>2 042.2         | 1954<br>1951<br>1951 | 1985<br>1984<br>1984     | PANALTA PART OF GLAUC POOL NO.3<br>CONCURRENT PRODUCTION GAS CYCLING<br>CONCURRENT PRODUCTION GAS CYCLING                            |
| 1.88                        | 0.280          | 0.60         | 2 620               | 14       | 0.940          | 0.57                           | 317.9                      | 1950                 | 1971                     | MATERIAL BALANCE OIL POOL DEPLETED   |
| 3.23                        | 0.174          | 0.40         | 5 220               | 35       | 0.910          | 0.59                           | 767.5                      | 1975                 | 1982                     |  |
| 2.73<br>5.07                | 0.125<br>0.156 | 0.75<br>0.85 | 11 140<br>16 060    | 60<br>77 | 0.850<br>0.880 | 0.65<br>0.60                   | 1 308.1<br>1 893.7         | 1964<br>1967<br>1964 | 1984<br>1982<br>1976     | WCOAST<br>PANALTA WCOAST<br>WCOAST MATERIAL BALANCE  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE        | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9       |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|---------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA    |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |         |
| <b>BOUNDARY LAKE SOUTH 084-12W6<br/>(CONTINUED)</b> |   |                          |                         |  |   |  |   |                                      |         |
| GOLATA B  | 1 186   | 0.90                     | 0.10                    | 961  | 778   | 183  | 40  | 7 399                                | 400     |
| KISKATINAW B  | 108   | 0.75                     | 0.05                    | 77   |   |  | 40  |                                      | 200     |
| GOLATA A  | 459   | 0.85                     | 0.05                    | 370  |   |  | 40  |                                      | 440     |
| KISKAT B & GOLATA A TOTAL                           | 567   | 0.85                     | 0.05                    | 447  | 381   | 66   | 40  | 2 668                                |         |
| OTHER   | 1 905   |                          |                         | 1 166  | 143   | 1 023  |   | 40 329                               |         |
| TOTAL-BOUNDARY LAKE SOUTH                           | 6 564   |                          |                         | 4 415  | 2 809   | 1 606  |   | 63 573                               |         |
| <b>BOUVIER 070-24W4</b>                             |   |                          |                         |  |   |  |   |                                      |         |
| WABAMUN C   | 518   | 0.65                     | 0.05                    | 320  | 43  | 277  | 37  | 10 266                               | 1 056   |
| OTHER   | 633   |                          |                         | 382  | 81  | 301  |   | 11 165                               |         |
| TOTAL-BOUVIER                                       | 1 151   |                          |                         | 702  | 124   | 578  |   | 21 431                               |         |
| <b>BOW ISLAND 011-11W4</b>                          |   |                          |                         |  |   |  |   |                                      |         |
| SECOND WHITE SPECKS A                               | 1 165   | 0.75                     | 0.05                    | 830  | 2   | 828  | 36  | 30 065                               | 17 025  |
| BOW ISLAND  | 3 803   | 0.80                     | 0.05                    | 2 890  | 633   | 2 257  | 39a   | 87 865                               | 40 523  |
| OTHER   | 1 027   |                          |                         | 732  | 8   | 724  |   | 27 216                               |         |
| TOTAL-BOW ISLAND                                    | 5 995   |                          |                         | 4 452  | 643   | 3 809  |   | 145 146                              |         |
| <b>BOWDEN (SA) 033-28W4</b>                         |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-BOWDEN  | 91  |                          |                         | 56   |   | 56   |   | 2 223                                |         |
| <b>BOYER 103-22W5</b>                               |   |                          |                         |  |   |  |   |                                      |         |
| BLUESKY A   | 18 413  | 0.60                     | 0.05                    | 10 496   |   |  | 37  |                                      | 130 715 |
| BLUESKY A   | 596   | 0.60                     | 0.05                    | 340  |   |  | 37  |                                      | 9 539   |
| BLUESKY A   | 147   | 0.60                     | 0.05                    | 84   |   |  | 37  |                                      | 4 410   |
| BLUESKY A   | 34  | 0.60                     | 0.05                    | 19   |   |  | 37  |                                      | 1 114   |
| BLUESKY A   | 20  | 0.65                     | 0.05                    | 12   |   |  | 37  |                                      | 150     |
| BLUESKY A   | 13  | 0.65                     | 0.05                    | 8  |   |  | 37  |                                      | 150     |
| BLUESKY A   | 8   | 0.65                     | 0.05                    | 5  |   |  | 37  |                                      | 150     |
| BLUESKY A   | 8   | 0.65                     | 0.05                    | 5  |   |  | 37  |                                      | 150     |
| BLUESKY A   | 6   | 0.60                     | 0.05                    | 4  |   |  | 37  |                                      | 150     |
| BLUESKY A   | 11  | 0.65                     | 0.05                    | 7  |   |  | 37  |                                      | 150     |
| BLUESKY A   | 5   | 0.65                     | 0.05                    | 3  |   |  | 37  |                                      | 150     |
| BLUESKY A   | 12  | 0.65                     | 0.05                    | 8  |   |  | 37  |                                      | 150     |
| BLUESKY A   | 11  | 0.65                     | 0.05                    | 7  |   |  | 37  |                                      | 150     |
| BLUESKY A   | 28  | 0.60                     | 0.05                    | 16   |   |  | 37  |                                      | 150     |
| BLUESKY A   | 29  | 0.65                     | 0.05                    | 18   |   |  | 37  |                                      | 150     |
| BLUESKY A   | 27  | 0.60                     | 0.05                    | 15   |   |  | 37  |                                      | 150     |
| BLUESKY A   | 32  | 0.60                     | 0.05                    | 18   |   |  | 37  |                                      | 150     |
| BLUESKY A   | 26  | 0.65                     | 0.05                    | 16   |   |  | 37  |                                      | 150     |
| BLUESKY A   | 18  | 0.65                     | 0.05                    | 11   |   |  | 37  |                                      | 150     |
| GETHING A   | 232   | 0.70                     | 0.05                    | 154  |   |  | 37  |                                      | 3 644   |
| BLUESKY A & GETHING A TOTAL                         | 19 676  | 0.60                     | 0.05                    | 11 246   | 1 712   | 9 534  | 37  | 356 858                              |         |
| OTHER   | 408   |                          |                         | 246  | 73  | 173  |   | 6 461                                |         |
| TOTAL-BOYER   | 20 084  |                          |                         | 11 492   | 1 785   | 9 707  |   | 363 319                              |         |
| <b>BRAEBURN 077-10W6</b>                            |   |                          |                         |  |   |  |   |                                      |         |
| BALDONNEL A   | 644   | 0.80                     | 0.10                    | 464  | 393   | 71   | 41a   | 2 897                                | 2 131   |
| OTHER   | 773   |                          |                         | 248  | 104   | 144  |   | 5 789                                |         |
| TOTAL-BRAEBURN                                      | 1 417   |                          |                         | 712  | 497   | 215  |   | 8 686                                |         |
| <b>BRANT 018-25W4</b>                               |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-BRANT   | 137   |                          |                         | 72   | 20  | 52   |   | 1 888                                |         |



| 10                                   | 11  | 12                                   | 13  | 14                         | 15  | 16                                   | 17  | 18                                   | 19                                   | 20  |
|--------------------------------------|---|--------------------------------------|---|----------------------------|---|--------------------------------------|---|--------------------------------------|--------------------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS          | POROSITY                                  | GAS<br>SATN                          | INITIAL<br>PRESSURE                       | TEMP                       | COMPRESS                                  | RAW GAS<br>RELATIVE<br>DENSITY       | MEAN<br>FORMATION<br>DEPTH                | DISC<br>YEAR                         | DATE<br>LAST<br>REVIEWED             | DISPOSITION AND REMARKS   |
| m                                    | frac                                      | frac                                 | kPa                                       | °C                         | frac                                      | frac                                 | m   |                                      |                                      |   |
| 6.17<br>2.44<br>5.79                 | 0.144<br>0.170<br>0.140                   | 0.80<br>0.80<br>0.80                 | 16 340<br>16 230<br>16 350                | 63<br>60<br>63             | 0.860<br>0.854<br>0.861                   | 0.64<br>0.59<br>0.60                 | 1 858.1<br>1 845.0<br>1 859.3             | 1964<br>1958<br>1958                 | 1982<br>1980<br>1980                 | WCOAST MATERIAL BALANCE<br><br>WCOAST   |
| 9.04                                 | 0.200                                     | 0.75                                 | 3 590                                     | 30                         | 0.931                                     | 0.59                                 | 650.4                                     | 1977                                 | 1982                                 | TCPL  |
| 0.88<br>1.09                         | 0.216<br>0.260                            | 0.60<br>0.60                         | 5 690<br>5 170                            | 27<br>27                   | 0.899<br>0.888                            | 0.57<br>0.60                         | 630.0<br>646.2                            | 1939<br>1909                         | 1984<br>1984                         | TCPL PROGAS PART OF 2WS POOL NO.1<br>NUL CWNG CWNGNUL PROGAS TCPL   |
| 6.40<br>2.84<br>1.51<br>1.38<br>6.20 | 0.210<br>0.210<br>0.210<br>0.210<br>0.207 | 0.40<br>0.40<br>0.40<br>0.40<br>0.40 | 2 550<br>2 550<br>2 550<br>2 550<br>2 560 | 19<br>19<br>19<br>19<br>21 | 0.948<br>0.948<br>0.948<br>0.948<br>0.962 | 0.57<br>0.57<br>0.57<br>0.57<br>0.57 | 335.3<br>335.3<br>335.3<br>335.3<br>389.3 | 1972<br>1972<br>1972<br>1972<br>1972 | 1985<br>1985<br>1985<br>1985<br>1985 | PART OF BLSKY POOL NO.1<br>PART OF BLSKY POOL NO.1<br>PART OF BLSKY POOL NO.1<br>PART OF BLSKY POOL NO.1<br>PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>11-29-100-23 W5M |
| 3.40                                 | 0.190                                     | 0.50                                 | 2 700                                     | 21                         | 0.946                                     | 0.57                                 | 379.0                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>10-31-101-24 W5M   |
| 3.00                                 | 0.160                                     | 0.40                                 | 2 750                                     | 22                         | 0.959                                     | 0.57                                 | 429.6                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>11-24-101-01 W6M   |
| 2.44                                 | 0.210                                     | 0.40                                 | 2 550                                     | 19                         | 0.948                                     | 0.57                                 | 338.1                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>10-16-102-23 W5M   |
| 1.80                                 | 0.210                                     | 0.40                                 | 2 550                                     | 19                         | 0.948                                     | 0.57                                 | 227.1                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>02/7-11-104-21 W5M   |
| 3.35                                 | 0.210                                     | 0.40                                 | 2 550                                     | 16                         | 0.946                                     | 0.57                                 | 228.2                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>10-07-105-20 W5M   |
| 1.52                                 | 0.210                                     | 0.40                                 | 2 550                                     | 16                         | 0.946                                     | 0.57                                 | 233.1                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>10-10-105-21 W5M   |
| 3.96                                 | 0.210                                     | 0.40                                 | 2 300                                     | 16                         | 0.963                                     | 0.57                                 | 231.9                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>10-21-105-21 W5M   |
| 3.70                                 | 0.180                                     | 0.50                                 | 2 230                                     | 16                         | 0.953                                     | 0.57                                 | 229.1                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>11-22-105-21 W5M   |
| 8.20                                 | 0.210                                     | 0.40                                 | 2 600                                     | 16                         | 0.945                                     | 0.57                                 | 266.9                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>11-09-106-23 W5M   |
| 9.90                                 | 0.200                                     | 0.40                                 | 2 420                                     | 16                         | 0.962                                     | 0.57                                 | 266.4                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>11-28-106-23 W5M   |
| 8.90                                 | 0.192                                     | 0.40                                 | 2 550                                     | 16                         | 0.960                                     | 7.00                                 | 273.3                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>06-13-106-24 W5M   |
| 9.00                                 | 0.230                                     | 0.40                                 | 2 500                                     | 16                         | 0.947                                     | 0.57                                 | 298.5                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>10-28-106-1 W6M  |
| 5.86                                 | 0.210                                     | 0.50                                 | 2 640                                     | 14                         | 0.943                                     | 0.57                                 | 220.7                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>02-06-106-20 W5M   |
| 4.01                                 | 0.210                                     | 0.50                                 | 2 640                                     | 14                         | 0.943                                     | 0.57                                 | 217.9                                     | 1972                                 | 1985                                 | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>10-21-106-20 W5M   |
| 1.90                                 | 0.250                                     | 0.50                                 | 2 620                                     | 21                         | 0.945                                     | 0.57                                 | 384.7                                     | 1976<br>1972                         | 1980<br>1985                         | PART OF BLSKY POOL NO.1<br>DOMEDOW A&S KANNGAZ PANALTA TCPL PART OF<br>BLSKY POOL NO.1  |
| 2.44                                 | 0.125                                     | 0.70                                 | 13 540                                    | 53                         | 0.834                                     | 0.61                                 | 1 738.3                                   | 1954                                 | 1982                                 | WCOAST  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>BRAZEAU RIVER 045-13W5</b>                |   |                          |                         |  |   |  |   |                                      |        |
| ELLERSLIE 1 047-14                           | 929   | 0.85                     | 0.10                    | 711  |   | 711  | 39  | 27 942                               | 1 241  |
| NORDEGG 07-047-12                            | 550   | 0.85                     | 0.05                    | 444  |   | 444  | 39  | 17 449                               | 256    |
| ELKTON-SHUNDA A                              |   | 0.75                     | 0.10                    |  |   |  | 39a   |                                      | 5 883  |
| ELKTON-SHUNDA A                              |   | 0.75                     | 0.10                    |  |   |  | 39a   |                                      | 7 608  |
| ELKTON-SHUNDA A TOTAL                        | 13 037  | 0.75                     | 0.10                    | 8 800  | 5 347   | 3 453  | 39a   | 134 425                              |        |
| ELKTON-SHUNDA B                              |   | 0.85                     | 0.10                    |  |   |  | 39a   |                                      | 26 045 |
| ELKTON-SHUNDA B                              |   | 0.85                     | 0.10                    |  |   |  | 39a   |                                      | 42 772 |
| ELKTON-SHUNDA B                              |   | 0.85                     | 0.10                    |  |   |  | 39a   |                                      | 128    |
| ELKTON-SHUNDA B                              |   | 0.85                     | 0.10                    |  |   |  | 39a   |                                      | 10 056 |
| ELKTON-SHUNDA B                              |   | 0.85                     | 0.10                    |  |   |  | 39a   |                                      | 200    |
| ELKTON-SHUNDA B                              |   | 0.85                     | 0.10                    |  |   |  | 39a   |                                      | 200    |
| ELKTON-SHUNDA B                              |   | 0.85                     | 0.10                    |  |   |  | 39a   |                                      | 26 558 |
| ELKTON-SHUNDA B TOTAL                        | 36 601  | 0.85                     | 0.10                    | 28 000   | 16 850  | 11 150   | 39a   | 438 195                              |        |
| NISKU A SOLN                                 | 901   | 0.75                     | 0.35                    | 439  | 292   | 147  | 39  | 5 777                                |        |
| NISKU E SOLN                                 | 814   | 0.65                     | 0.35                    | 344  | 240   | 104  | 39  | 4 087                                |        |
| NISKU F                                      | 736   | 0.80                     | 0.30                    | 412  | 29  | 383  | 39  | 15 052                               | 104    |
| NISKU J                                      | 707   | c                        | c                       | 481  | 23  | 458  | 41  | 18 783                               | 96     |
| NISKU K                                      | 812   | c                        | c                       | 429  | 47  | 382  | 41  | 15 666                               | 255    |
| NISKU M                                      | 1 250   | c                        | c                       | 681  |   | 681  | 39  | 26 763                               | 150    |
| NISKU P                                      | 4 054   | c                        | c                       | 1 300  |   | 1 300  | 39  | 50 986                               | 3 367  |
| NISKU S                                      | 1 021   | 0.85                     | 0.20                    | 694  | 99  | 595  | 39  | 23 384                               | 128    |
| NISKU 12-048-12                              | 926   | 0.90                     | 0.15                    | 708  |   | 708  | 39  | 27 824                               | 128    |
| OTHER  | 8 108   |                          |                         | 4 899  | -990  | 5 889  |   | 232 193                              |        |
| TOTAL-BRAZEAU RIVER                          | 70 446  |                          |                         | 48 342   | 21 937  | 26 405   |   | 1 038 526                            |        |
| <b>BREMNER 078-04W6</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BREMNER                                | 31  |                          |                         | 22   |   | 22   |   | 807                                  |        |
| <b>BRIDGE 057-07W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BRIDGE                                 | 272   |                          |                         | 184  |   | 184  |   | 7 231                                |        |
| <b>BRIGHT 051-02W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BRIGHT                                 | 271   |                          |                         | 198  |   | 198  |   | 8 299                                |        |
| <b>BRIKER 046-03W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BRIKER                                 | 114   |                          |                         | 81   |   | 81   |   | 3 032                                |        |
| <b>BRINTELL (SA) 081-23W4</b>                |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BRINTELL                               | 36  |                          |                         | 21   |   | 21   |   | 769                                  |        |
| <b>BRITTS (SA) 096-17W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BRITTS                                 | 31  |                          |                         | 17   |   | 17   |   | 681                                  |        |
| <b>BRONSON 057-17W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BRONSON                                | 701   |                          |                         | 478  |   | 478  |   | 19 144                               |        |
| <b>BROOKS 018-14W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| MILK RIVER A                                 | 444   | 0.70                     | 0.05                    | 295  |   |  | 36a   |                                      | 3 498  |
| MEDICINE HAT A                               | 65  | 0.70                     | 0.03                    | 44   |   |  | 36a   |                                      | 1 883  |
| MEDICINE HAT C                               | 22  | 0.50                     | 0.03                    | 11   |   |  | 36a   |                                      | 752    |
| MEDICINE HAT D                               | 2   | 0.50                     | 0.03                    | 1  |   |  | 36  |                                      | 102    |
| SE-ALTA GAS SYS. (MU) TOTAL                  | 533   | 0.70                     | 0.05                    | 351  | 174   | 177  | 36a   | 6 427                                |        |
| OTHER  | 45  |                          |                         | 31   |   | 31   |   | 1 253                                |        |
| TOTAL-BROOKS                                 | 578   |                          |                         | 382  | 174   | 208  |   | 7 680                                |        |
| <b>BROWN CREEK (SA) 044-17W5</b>             |   |                          |                         |  |   |  |   |                                      |        |
| RUNDLE 20-044-17                             | 603   | 0.75                     | 0.10                    | 407  |   | 407  | 36  | 14 778                               | 200    |
| OTHER  | 73  |                          |                         | 52   |   | 52   |   | 1 888                                |        |
| TOTAL-BROWN CREEK                            | 676   |                          |                         | 459  |   | 459  |   | 16 666                               |        |
| <b>BROWVALE 081-26W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BROWVALE                               | 166   |                          |                         | 101  |   | 101  |   | 3 705                                |        |
| <b>BRDXBURN 009-21W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BROXBURN                               | 50  |                          |                         | 29   | 20  | 9  |   | 337                                  |        |
| <b>BRUCE 047-16W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| UPPER VIKING A                               |   | 0.75                     | 0.03                    |  |   |  | 38  |                                      | 84 816 |



[illegible]

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>BRUCE 047-16W4 (CONTINUED)</b>            |   |                          |                         |  |   |  |   |                                      |        |
| MIDDLE VIKING A                              |   | 0.75                     | 0.03                    |  |   |  | 38 <sup>a</sup>                             |                                      |        |
| MIDDLE VIKING B                              | 385   | 0.55                     | 0.03                    | 206  |   |  | 37  |                                      | 15 454 |
| U VK A, M VK A&M VK B TOTAL                  | 5 085   | 0.75                     | 0.05                    | 3 700  | 1 930   | 1 770  | 37  | 66 251                               |        |
| UPPER MANNVILLE ZZZ                          | 455   | 0.70                     | 0.05                    | 303  | 165   | 138  | 38  | 5 269                                | 400    |
| OTHER  | 14 073  |                          |                         | 9 269  | 2 324   | 6 945  |   | 264 091                              |        |
| TOTAL-BRUCE                                  | 19 613  |                          |                         | 13 272   | 4 419   | 8 853  |   | 335 611                              |        |
| <b>BUFF COULEE 046-07W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| COLONY A                                     | 459   | 0.85                     | 0.05                    | 371  | 83  | 288  | 37  | 10 780                               | 3 104  |
| OTHER  | 904   |                          |                         | 625  | 187   | 438  |   | 16 395                               |        |
| TOTAL-BUFF COULEE                            | 1 363   |                          |                         | 996  | 270   | 726  |   | 27 175                               |        |
| <b>BUFFALO LAKE 040-20W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BUFFALO LAKE                           | 728   |                          |                         | 386  | 25  | 361  |   | 15 132                               |        |
| <b>BUICK 090-02W6</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BUICK                                  | 76  |                          |                         | 51   |   | 51   |   | 2 004                                |        |
| <b>BURDETT (SA) 009-10W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BURDETT                                | 82  |                          |                         | 58   |   | 58   |   | 2 258                                |        |
| <b>BURNT TIMBER 031-09W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| RUNDLE A                                     | 20 750  | 0.80                     | 0.20                    | 13 280   |   |  | 39 <sup>a</sup>                             |                                      | 4 431  |
| RUNDLE B                                     | 2 688   | 0.80                     | 0.20                    | 1 720  |   |  | 39 <sup>a</sup>                             |                                      | 2 446  |
| RUNDLE A & B TOTAL                           | 23 438  | 0.80                     | 0.20                    | 15 000   | 7 814   | 7 186  | 39 <sup>a</sup>                             | 279 751                              |        |
| WABAMUN A                                    | 4 848   | 0.75                     | 0.45                    | 2 000  | 555   | 1 445  | 39  | 56 254                               | 2 993  |
| TOTAL-BURNT TIMBER                           | 28 286  |                          |                         | 17 000   | 8 369   | 8 631  |   | 336 005                              |        |
| <b>BUSBY (SA) 057-27W4</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-BUSBY                                  | 13  |                          |                         | 8  |   | 8  |   | 296                                  |        |
| <b>BYEMOOR 034-19W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| BASAL QUARTZ 03-034-19                       | 435   | 0.80                     | 0.10                    | 313  |   | 313  | 42  | 13 005                               | 200    |
| OTHER  | 131   |                          |                         | 85   | 17  | 68   |   | 2 826                                |        |
| TOTAL-BYEMOOR                                | 566   |                          |                         | 398  | 17  | 381  |   | 15 831                               |        |
| <b>CACHE 058-12W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 2 355   | 0.80                     | 0.05                    | 1 790  | 15  | 1 775  | 37  | 65 107                               | 34 518 |
| COLONY D                                     | 524   | 0.80                     | 0.05                    | 398  | 131   | 267  | 37  | 9 994                                | 2 132  |
| COLONY G                                     | 471   | 0.80                     | 0.05                    | 358  | 335   | 23   | 37  | 861                                  | 593    |
| COLONY P                                     | 411   | 0.80                     | 0.05                    | 312  | 79  | 233  | 37  | 8 721                                | 1 081  |
| COLONY BB                                    | 71  | 0.65                     | 0.05                    | 44   |   |  | 37  |                                      | 745    |
| COLONY EE                                    | 112   | 0.70                     | 0.05                    | 75   |   |  | 37  |                                      | 1 262  |
| COLONY HH                                    | 330   | 0.80                     | 0.05                    | 251  |   |  | 37  |                                      | 2 608  |
| COLONY BB, EE & HH TOTAL                     | 513   | 0.75                     | 0.05                    | 370  | 209   | 161  | 37  | 6 026                                |        |
| COLONY DD                                    |   | 0.75                     | 0.05                    |  |   |  | 37  |                                      | 880    |
| COLONY FF                                    |   | 0.75                     | 0.05                    |  |   |  | 37  |                                      | 750    |
| COLONY DD & FF TOTAL                         | 486   | 0.75                     | 0.05                    | 346  | 216   | 130  | 37  | 4 866                                |        |
| CLEARWATER B                                 | 1 000   | 0.70                     | 0.05                    | 665  | 622   | 43   | 37  | 1 609                                | 3 843  |
| OTHER  | 5 494   |                          |                         | 3 683  | 1 423   | 2 260  |   | 84 663                               |        |
| TOTAL-CACHE                                  | 11 254  |                          |                         | 7 922  | 3 030   | 4 892  |   | 181 847                              |        |
| <b>CADDOTTE 086-19W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-CADDOTTE                               | 649   |                          |                         | 404  | 123   | 281  |   | 10 518                               |        |
| <b>CALAIS 070-25W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-CALAIS                                 | 516   |                          |                         | 370  | 38  | 332  |   | 12 426                               |        |
| <b>CALLING LAKE 071-18W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| D-2 B  | 2 372   | 0.75                     | 0.05                    | 1 690  | 1 367   | 323  | 37  | 12 090                               | 39 722 |
| D-2 C  | 524   | 0.80                     | 0.05                    | 399  | 27  | 372  | 39  | 14 620                               | 3 465  |
| OTHER  | 681   |                          |                         | 436  | 35  | 401  |   | 15 002                               |        |
| TOTAL-CALLING LAKE                           | 3 577   |                          |                         | 2 525  | 1 429   | 1 096  |   | 41 712                               |        |
| <b>CALLING LAKE SOUTH 070-22W4</b>           |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-CALLING LAKE SOUTH                     | 461   |                          |                         | 284  | 33  | 251  |   | 9 913                                |        |
| <b>CALLING LAKE WEST 071-20W4</b>            |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE A                            | 555   | 0.70                     | 0.05                    | 369  | 59  | 310  | 37  | 11 489                               | 3 361  |
| OTHER  | 817   |                          |                         | 513  | 85  | 428  |   | 15 747                               |        |
| TOTAL-CALLING LAKE WEST                      | 1 372   |                          |                         | 882  | 144   | 738  |   | 27 236                               |        |



| 10                          | 11             | 12           | 13                  | 14        | 15             | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------------|--------------|---------------------|-----------|----------------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY       | GAS<br>SATN  | INITIAL<br>PRESSURE | TEMP      | COMPRESS       | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS  |
| m                           | frac           | frac         | kPa                 | °C        | frac           | frac                           | m                          |              |                          |  |
| 1.15                        | 0.180<br>0.212 | 0.70<br>0.40 | 5 650<br>5 650      | 26<br>27  | 0.896<br>0.896 | 0.60<br>0.60                   | 789.4<br>689.4             | 1917<br>1952 | 1985<br>1985             | PART OF VIK POOL NO.2 MATERIAL BALANCE<br>PART OF VIK POOL NO.2 PRODUCTION DECLINE               |
| 1.70                        | 0.250          | 0.65         | 6 170               | 29        | 0.887          | 0.59                           | 882.1                      | 1917<br>1977 | 1985<br>1984             | PANALTA TCPL PART OF VIK POOL NO.2<br>TCPL MATERIAL BALANCE                                      |
| 2.16                        | 0.285          | 0.55         | 4 150               | 22        | 0.916          | 0.59                           | 596.1                      | 1976         | 1984                     | CWNGNUL PANALTA  |
| 31.61<br>9.52               | 0.073<br>0.065 | 0.88<br>0.80 | 26 610<br>25 860    | 94<br>100 | 0.916<br>0.888 | 0.72<br>0.76                   | 3 229.6<br>3 342.4         | 1959<br>1959 | 1985<br>1984             | TOP/BASE TVD<br>TOP/BASE TVD   |
| 13.99                       | 0.054          | 0.80         | 31 720              | 116       | 0.865          | 0.88                           | 3 757.4                    | 1959<br>1976 | 1984<br>1983             | TCPL<br>TCPL   |
| 7.70                        | 0.220          | 0.70         | 16 100              | 41        | 0.795          | 0.65                           | 1 329.0                    | 1980         | 1980                     |  |
| 1.04<br>5.12                | 0.283<br>0.230 | 0.55<br>0.55 | 4 000<br>3 650      | 21<br>21  | 0.918<br>0.931 | 0.58<br>0.56                   | 434.3<br>477.6             | 1949<br>1952 | 1984<br>1977             | MIP PANALTA TCPL PART OF VIK POOL NO.6<br>NUL CWNG CWNGNUL MIP PANALTA TCPL OIL POOL<br>DEPLETED |
| 2.99<br>4.86                | 0.246<br>0.283 | 0.60<br>0.75 | 3 390<br>3 520      | 22<br>19  | 0.932<br>0.931 | 0.57<br>0.56                   | 491.9<br>498.3             | 1965<br>1977 | 1985<br>1981             | NUL CWNG MIP PANALTA MATERIAL BALANCE<br>MIP PANALTA TCPL  |
| 1.46<br>1.33                | 0.272<br>0.270 | 0.70<br>0.60 | 3 320<br>3 920      | 21<br>21  | 0.931<br>0.918 | 0.58<br>0.58                   | 480.4<br>485.4             | 1977<br>1973 | 1981<br>1982             |  |
| 1.66                        | 0.294          | 0.65         | 3 800               | 21        | 0.920          | 0.58                           | 481.4                      | 1971         | 1981                     |  |
| 1.33<br>1.42                | 0.290<br>0.278 | 0.60<br>0.70 | 4 220<br>4 270      | 21<br>21  | 0.916<br>0.911 | 0.57<br>0.58                   | 483.0<br>476.9             | 1958<br>1958 | 1982<br>1985             | MIP PANALTA TCPL<br>MATERIAL BALANCE<br>MATERIAL BALANCE   |
| 2.33                        | 0.330          | 0.65         | 3 850               | 21        | 0.925          | 0.57                           | 572.1                      | 1958<br>1973 | 1982<br>1985             | MIP<br>MIP PANALTA TCPL PRODUCTION DECLINE   |
| 7.92<br>7.42                | 0.055<br>0.120 | 0.55<br>0.65 | 2 450<br>2 520      | 19<br>17  | 0.953<br>0.945 | 0.57<br>0.57                   | 465.7<br>471.5             | 1964<br>1978 | 1978<br>1982             | MATERIAL BALANCE<br>KANNGAZ PANALTA TCPL   |
| 3.20                        | 0.300          | 0.60         | 2 790               | 20        | 0.942          | 0.56                           | 423.7                      | 1970         | 1977                     | KANNGAZ PANALTA  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>CAMP (SA) 063-08W5</b><br>TOTAL-CAMP      | 70  |                          |                         | 50   |   | 50   |   | 1 871                                |        |
| <b>CAMPBELL NAMA0 054-25W4</b>               |   |                          |                         |  |   |  |   |                                      |        |
| CAMPBELL BLAIRMORE A SOLN                    | 117   | 0.65                     | 0.10                    | 69b  |   |  | 38  |                                      |        |
| CAMPBELL BLAIRMORE A ASSOC                   | 861   | 0.80                     | 0.10                    | 620b   | 651b  | 38   | 38  | 1 451                                | 430    |
| NAMA0 BLAIRMORE E SOLN                       | 120   | 0.65                     | 0.10                    | 71b  |   |  | 38  |                                      |        |
| NAMA0 BLAIRMORE E ASSOC                      | 862   | 0.90                     | 0.10                    | 699b   | 473b  | 297  | 38  | 11 339                               | 704    |
| OTHER  | 1 612   |                          |                         | 987  | 230   | 757  |   | 28 904                               |        |
| TOTAL-CAMPBELL NAMA0                         | 3 572   |                          |                         | 2 446  | 1 354   | 1 092  |   | 41 694                               |        |
| <b>CANAL 070-23W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| WABAMUN B                                    | 512   | 0.85                     | 0.10                    | 392  | 15  | 377  | 37  | 14 111                               | 1 896  |
| OTHER  | 162   |                          |                         | 104  |   | 104  |   | 3 863                                |        |
| TOTAL-CANAL                                  | 674   |                          |                         | 496  | 15  | 481  |   | 17 974                               |        |
| <b>CANARD 057-09W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 400   | 0.80                     | 0.05                    | 304  | 1   | 303  | 37  | 11 341                               | 10 790 |
| OTHER  | 1 460   |                          |                         | 974  | 221   | 753  |   | 28 185                               |        |
| TOTAL-CANARD                                 | 1 860   |                          |                         | 1 278  | 222   | 1 056  |   | 39 526                               |        |
| <b>CAPRON 026-02W4</b><br>TOTAL-CAPRON       | 193   |                          |                         | 133  | 8   | 125  |   | 4 986                                |        |
| <b>CARBON 029-22W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| VIKING D                                     | 2 021   | 0.77                     | 0.10                    | 1 400  | 1 042   | 358  | 38  | 13 668                               | 7 108  |
| GLAUCONITIC                                  | 3 803   | 0.90                     | 0.01                    | 3 380  | 1 574   | 1 806  | 42  | 75 708                               | 6 375  |
| OTHER  | 1 603   |                          |                         | 995  | 346   | 649  |   | 25 694                               |        |
| TOTAL-CARBON                                 | 7 427   |                          |                         | 5 775  | 2 962   | 2 813  |   | 115 070                              |        |
| <b>CARDIFF 054-02W5</b><br>TOTAL-CARDIFF     | 683   |                          |                         | 488  | 72  | 416  |   | 16 551                               |        |
| <b>CARIBOU 062-10W5</b><br>TOTAL-CARIBOU     | 91  |                          |                         | 60   | 21  | 39   |   | 1 649                                |        |
| <b>CAROLINE 035-06W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM E SOLN                               | 3 098   | 0.35                     | 0.15                    | 921  | 589   | 332  | 39  | 13 048                               |        |
| VIKING A SOLN                                | 872   | 0.65                     | 0.15                    | 482b   |   |  | 39a   |                                      |        |
| VIKING A ASSOC                               | 4 188   | 0.92                     | 0.05                    | 3 660b   | 2 791b  | 1 351  | 39a   | 53 094                               | 15 206 |
| GLAUCONITIC C                                | 116   | 0.75                     | 0.10                    | 78   |   |  | 38  |                                      | 200    |
| BASAL MANNVILLE K                            | 724   | 0.80                     | 0.15                    | 492  |   |  | 39  |                                      | 2 024  |
| BASAL MANNVILLE R                            | 199   | 0.80                     | 0.10                    | 143  |   |  | 39  |                                      | 822    |
| BASAL MANNVILLE GG                           | 2 394   | 0.65                     | 0.10                    | 1 400  |   |  | 39  |                                      | 4 396  |
| BASAL MANNVILLE QQ                           | 570   | 0.75                     | 0.10                    | 385  |   |  | 39  |                                      | 2 017  |
| BASAL MANNVILLE RR                           | 167   | 0.75                     | 0.10                    | 113  |   |  | 39  |                                      | 835    |
| BASAL MANNVILLE KKK                          | 30  | 0.75                     | 0.10                    | 21   |   |  | 39  |                                      | 150    |
| BASAL MANNVILLE LLL                          | 43  | 0.75                     | 0.10                    | 29   |   |  | 39  |                                      | 150    |
| BASAL MANNVILLE MMM                          | 74  | 0.75                     | 0.10                    | 50   |   |  | 39  |                                      | 150    |
| GLAUC & BSL MANN MU 1 TOTAL                  | 4 317   | 0.70                     | 0.10                    | 2 711  | 158   | 2 553  | 38  | 97 474                               |        |
| BASAL MANNVILLE B                            | 950   | 0.80                     | 0.10                    | 684  | 381   | 303  | 45  | 13 611                               | 200    |
| BASAL MANNVILLE G                            | 872   | 0.85                     | 0.10                    | 667  | 241   | 426  | 39  | 16 584                               | 200    |
| BASAL MANNVILLE DD                           | 511   | 0.75                     | 0.10                    | 345  | 13  | 332  | 37  | 12 427                               | 200    |
| BASAL MANNVILLE A                            | 755   | 0.80                     | 0.10                    | 544  |   |  | 39  |                                      | 2 704  |
| BASAL MANNVILLE L                            | 859   | 0.80                     | 0.10                    | 618  |   |  | 39  |                                      | 3 377  |
| BASAL MANNVILLE SS                           | 167   | 0.80                     | 0.10                    | 120  |   |  | 39  |                                      | 656    |
| BASAL MANNVILLE AL&SS TOTAL                  | 1 781   | 0.80                     | 0.10                    | 1 282  | 200   | 1 082  | 39  | 42 122                               |        |
| BASAL MANNVILLE I                            | 554   | 0.85                     | 0.10                    | 424  |   |  | 39  |                                      | 879    |
| BASAL MANNVILLE XX                           | 114   | 0.75                     | 0.10                    | 77   |   |  | 39  |                                      | 300    |
| BASAL MANNVILLE YY                           | 22  | 0.75                     | 0.10                    | 15   |   |  | 39  |                                      | 300    |
| BASAL MANNVILLE AAA                          | 27  | 0.75                     | 0.10                    | 18   |   |  | 39  |                                      | 150    |
| BMN I,XX,YY & AAA TOTAL                      | 717   | 0.85                     | 0.10                    | 534  | 19  | 515  | 39  | 20 049                               |        |
| BASAL MANNVILLE M                            | 233   | 0.75                     | 0.10                    | 158  |   |  | 39  |                                      | 598    |
| BASAL MANNVILLE GGG                          | 81  | 0.75                     | 0.10                    | 55   |   |  | 39  |                                      | 150    |
| BASAL MANNVILLE HHH                          | 91  | 0.75                     | 0.10                    | 61   |   |  | 39  |                                      | 432    |
| BASAL MANNVILLE III                          | 68  | 0.75                     | 0.10                    | 46   |   |  | 39  |                                      | 300    |
| BASAL MANNVILLE MU #1 TOTAL                  | 473   | 0.75                     | 0.10                    | 320  | 77  | 243  | 39  | 9 460                                |        |
| BASAL MANNVILLE AA                           | 150   | 0.80                     | 0.15                    | 102  |   |  | 39  |                                      | 845    |
| BASAL MANNVILLE BBB                          | 88  | 0.75                     | 0.15                    | 56   |   |  | 39  |                                      | 647    |
| BASAL MANNVILLE CCC                          | 304   | 0.85                     | 0.15                    | 219  |   |  | 39  |                                      | 1 162  |
| BSL MANN AA,BBB & CCC TOTAL                  | 542   | 0.80                     | 0.15                    | 377  | 52  | 325  | 39  | 12 652                               |        |
| BASAL MANNVILLE DD                           | 640   | 0.80                     | 0.15                    | 435  |   |  | 39  |                                      | 1 671  |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS  |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |  |
| 1.77                        | 0.190    | 0.75        | 8 200               | 38   | 0.845    | 0.66<br>0.66                   | 1 132.9                    | 1949<br>1949 | 1982<br>1982             | PANALTA NORCEN PRODUCTION DECLINE GPP<br>PANALTA NORCEN PRODUCTION DECLINE GPP |
| 9.11                        | 0.192    | 0.80        | 8 380               | 46   | 0.852    | 0.67<br>0.67                   | 1 105.6                    | 1951<br>1951 | 1982<br>1982             | NORCEN GPP<br>NORCEN GPP   |
| 5.42                        | 0.210    | 0.80        | 2 970               | 29   | 0.942    | 0.61                           | 597.2                      | 1972         | 1981                     | TCPL   |
| 0.77                        | 0.256    | 0.45        | 3 950               | 19   | 0.919    | 0.58                           | 475.4                      | 1949         | 1983                     | PANALTA TCPL PART OF VIK POOL NO.6   |
| 2.02                        | 0.145    | 0.60        | 8 180               | 41   | 0.841    | 0.66                           | 1 300.2                    | 1964         | 1985                     | A&S CWNGNUL PANALTA TCPL PART OF VIK POOL<br>NO.3 PRODUCTION DECLINE           |
| 5.60                        | 0.199    | 0.65        | 10 170              | 50   | 0.823    | 0.68                           | 1 446.6                    | 1955         | 1984                     | CWNG CWNGNUL TCPL MATERIAL BALANCE   |
| 2.00                        | 0.108    | 0.75        | 17 260              | 74   | 0.832    | 0.68<br>0.68                   | 2 402.9                    | 1957<br>1957 | 1984<br>1985             | PROGAS TCPL SECONDARY GAS CAP<br>CONCURRENT PRODUCTION                         |
| 3.00                        | 0.110    | 0.80        | 26 790              | 98   | 0.932    | 0.80                           | 2 852.2                    | 1981         | 1985                     | CONCURRENT PRODUCTION  |
| 1.71                        | 0.109    | 0.75        | 28 480              | 80   | 0.897    | 0.87                           | 3 010.8                    | 1980         | 1985                     |  |
| 1.43                        | 0.087    | 0.75        | 28 480              | 75   | 0.897    | 0.78                           | 2 994.3                    | 1980         | 1985                     |  |
| 3.08                        | 0.097    | 0.75        | 27 120              | 80   | 0.899    | 0.68                           | 2 937.5                    | 1970         | 1985                     | PANALTA PROGAS TCPL  |
| 1.25                        | 0.110    | 0.85        | 26 100              | 78   | 0.875    | 0.69                           | 2 977.6                    | 1981         | 1985                     |  |
| 1.15                        | 0.102    | 0.70        | 26 700              | 78   | 0.888    | 0.68                           | 2 928.1                    | 1981         | 1985                     |  |
| 0.80                        | 0.130    | 0.85        | 26 300              | 96   | 0.900    | 0.69                           | 2 956.5                    | 1984         | 1985                     |  |
| 1.70                        | 0.100    | 0.75        | 26 300              | 96   | 0.900    | 0.69                           | 2 940.7                    | 1984         | 1985                     |  |
| 1.60                        | 0.162    | 0.85        | 26 300              | 96   | 0.900    | 0.69                           | 2 845.9                    | 1982         | 1985                     |  |
| 8.02                        | 0.150    | 0.70        | 29 370              | 86   | 0.917    | 0.75                           | 2 881.4                    | 1958         | 1981                     | A&S PRODUCTION DECLINE   |
| 26.10                       | 0.110    | 0.85        | 19 760              | 93   | 0.859    | 0.67                           | 2 958.8                    | 1981         | 1981                     | A&S  |
| 10.60                       | 0.110    | 0.95        | 25 500              | 84   | 0.880    | 0.70                           | 2 844.3                    | 1978         | 1979                     | A&S TCPL   |
| 1.33                        | 0.107    | 0.80        | 27 970              | 84   | 0.908    | 0.74                           | 2 657.8                    | 1979         | 1984                     |  |
| 1.00                        | 0.116    | 0.85        | 29 680              | 81   | 0.924    | 0.68                           | 2 652.1                    | 1964         | 1985                     |  |
| 0.90                        | 0.138    | 0.85        | 27 450              | 84   | 0.905    | 0.68                           | 2 650.8                    | 1980         | 1984                     |  |
| 2.91                        | 0.126    | 0.80        | 24 200              | 92   | 0.878    | 0.70                           | 2 886.8                    | 1980         | 1985                     | A&S TCPL   |
| 2.00                        | 0.110    | 0.80        | 24 200              | 91   | 0.878    | 0.70                           | 2 910.1                    | 1980         | 1985                     | A&S TCPL   |
| 0.40                        | 0.108    | 0.80        | 24 200              | 92   | 0.878    | 0.70                           | 2 888.0                    | 1980         | 1985                     | A&S  |
| 1.30                        | 0.082    | 0.75        | 24 500              | 86   | 0.872    | 0.70                           | 2 872.3                    | 1980         | 1985                     |  |
| 1.86                        | 0.126    | 0.80        | 23 410              | 89   | 0.883    | 0.68                           | 2 799.0                    | 1979         | 1985                     |  |
| 4.20                        | 0.100    | 0.60        | 24 230              | 90   | 0.889    | 0.68                           | 2 858.2                    | 1979         | 1985                     |  |
| 1.17                        | 0.103    | 0.85        | 23 000              | 89   | 0.881    | 0.68                           | 2 800.6                    | 1962         | 1985                     |  |
| 1.35                        | 0.097    | 0.85        | 23 000              | 89   | 0.881    | 0.68                           | 2 806.6                    | 1980         | 1985                     |  |
| 0.78                        | 0.134    | 0.75        | 24 690              | 84   | 0.869    | 0.74                           | 2 659.4                    | 1976         | 1985                     | A&S  |
| 0.75                        | 0.114    | 0.70        | 24 690              | 84   | 0.869    | 0.74                           | 2 677.0                    | 1976         | 1985                     |  |
| 1.25                        | 0.132    | 0.70        | 24 690              | 84   | 0.869    | 0.74                           | 2 683.6                    | 1976         | 1985                     |  |
| 1.63                        | 0.119    | 0.80        | 27 850              | 87   | 0.892    | 0.73                           | 2 810.6                    | 1960         | 1985                     | A&S  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>CAROLINE 035-06W5<br/>(CONTINUED)</b>     |   |                          |                         |  |   |  |   |                                      |        |
| BASAL MANNVILLE PP                           | 38  | 0.80                     | 0.15                    | 26   |   |  | 39  |                                      | 300    |
| BASAL MANNVILLE VV                           | 431   | 0.80                     | 0.15                    | 293  |   |  | 39  |                                      | 1 554  |
| BASAL MANNVILLE ZZ                           | 22  | 0.80                     | 0.15                    | 15   |   |  | 39  |                                      | 150    |
| BASAL MANNVILLE DDD                          | 42  | 0.75                     | 0.15                    | 27   |   |  | 39  |                                      | 128    |
| BASAL MANNVILLE JJJ                          | 30  | 0.80                     | 0.15                    | 20   |   |  | 39  |                                      | 150    |
| BASAL MANNVILLE MU #3 TOTAL                  | 1 203   | 0.80                     | 0.15                    | 816  | 41  | 775  | 39  | 30 171                               |        |
| BASAL MANNVILLE D                            | 48  | 0.75                     | 0.15                    | 31   |   |  | 39  |                                      | 200    |
| BASAL MANNVILLE Y                            | 5 185   | 0.60                     | 0.10                    | 2 800  |   |  | 39  |                                      | 6 609  |
| BASAL MANNVILLE EE                           | 45  | 0.75                     | 0.10                    | 31   |   |  | 39  |                                      | 200    |
| BASAL MANNVILLE FF                           | 193   | 0.75                     | 0.10                    | 130  |   |  | 39  |                                      | 200    |
| BASAL MANNVILLE HH                           | 101   | 0.75                     | 0.15                    | 65   |   |  | 39  |                                      | 690    |
| BASAL MANNVILLE II                           | 11  | 0.70                     | 0.10                    | 7  |   |  | 39  |                                      | 128    |
| BASAL MANNVILLE JJ                           | 28  | 0.75                     | 0.10                    | 19   |   |  | 39  |                                      | 200    |
| BASAL MANNVILLE KK                           | 38  | 0.75                     | 0.10                    | 26   |   |  | 39  |                                      | 200    |
| BASAL MANNVILLE LL                           | 29  | 0.75                     | 0.10                    | 19   |   |  | 39  |                                      | 200    |
| OSTRACOD A                                   | 352   | 0.85                     | 0.10                    | 270  |   |  | 39  |                                      | 887    |
| GLAUCONITIC F                                | 236   | 0.75                     | 0.05                    | 168  |   |  | 39  |                                      | 840    |
| BASAL MANN & DST MU TOTAL                    | 6 266   | 0.65                     | 0.10                    | 3 566  | 335   | 3 231  | 39a   | 125 783                              |        |
| ELLERSLIE 23-036-06                          | 504   | 0.75                     | 0.10                    | 340  |   |  | 38  | 12 855                               | 200    |
| ELKTON A                                     | 671   | 0.85                     | 0.15                    | 485  | 301   | 184  | 37  | 6 887                                | 400    |
| ELKTON I                                     | 471   | 0.85                     | 0.15                    | 340  | 64  | 276  | 37  | 10 262                               | 200    |
| OTHER  | 13 810  |                          |                         | 5 705  | 250   | 5 455  |   | 214 543                              |        |
| TOTAL-CARDLINE                               | 41 246  |                          |                         | 23 235   | 5 512   | 17 723   |   | 691 022                              |        |
| <b>CARROT CREEK 052-12W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| LOWER MANNVILLE S                            | 371   | 0.90                     | 0.10                    | 301  |   | 301  | 40  | 12 055                               | 200    |
| LOWER MANNVILLE G                            | 824   | 0.85                     | 0.15                    | 595  |   |  | 40  |                                      | 1 054  |
| LOWER MANNVILLE L                            | 246   | 0.85                     | 0.15                    | 178  |   |  | 40  |                                      | 511    |
| LOWER MANNVILLE O                            | 82  | 0.85                     | 0.15                    | 59   |   |  | 40  |                                      | 200    |
| LOWER MANNVILLE G,L&O TOTAL                  | 1 152   | 0.85                     | 0.15                    | 832  | 89  | 743  | 40  | 29 757                               |        |
| LOWER MANNVILLE Q                            | 481   | 0.85                     | 0.25                    | 306  |   |  | 40  |                                      | 200    |
| JURASSIC T                                   | 163   | 0.80                     | 0.10                    | 117  |   |  | 37  |                                      | 294    |
| L MANN Q & JUR T TOTAL                       | 644   | 0.85                     | 0.20                    | 423  | 67  | 356  | 39  | 13 895                               |        |
| OTHER  | 4 386   |                          |                         | 2 779  | 165   | 2 614  |   | 101 056                              |        |
| TOTAL-CARROT CREEK                           | 6 553   |                          |                         | 4 335  | 321   | 4 014  |   | 156 763                              |        |
| <b>CARSON CREEK 061-12W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| BEAVERHILL LAKE B                            | 10 941  | C                        | C                       | 8 030  | 4 511   | 3 519  | 42a   | 146 566                              | 10 130 |
| TOTAL-CARSON CREEK                           | 10 941  |                          |                         | 8 030  | 4 511   | 3 519  |   | 146 566                              |        |
| <b>CARSON CREEK NORTH 062-12W5</b>           |   |                          |                         |  |   |  |   |                                      |        |
| BEAVERHILL LAKE B SOLN                       | 11 645  | 0.47                     | 0.20                    | 4 379  | 2 994   | 1 385  | 40a   | 55 469                               |        |
| BEAVERHILL LAKE A SOLN                       | 3 556   | 0.45                     | 0.20                    | 1 280b   |   |  | 40a   |                                      |        |
| BEAVERHILL LAKE A ASSOC                      | 691   | 0.90                     | 0.10                    | 560b   | 1 375b  | 465  | 40a   | 18 623                               | 1 129  |
| OTHER  | 191   |                          |                         | 122  |   | 122  |   | 4 886                                |        |
| TOTAL-CARSON CREEK NORTH                     | 16 083  |                          |                         | 6 341  | 4 369   | 1 972  |   | 78 978                               |        |
| <b>CARSTAIRS 030-02W5</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| ELKTON A                                     | 29 910  | C                        | C                       | 20 800   | 20 270  | 530  | 40a   | 21 285                               | 7 186  |
| OTHER  | 1 311   |                          |                         | 878  | 34  | 844  |   | 34 003                               |        |
| TOTAL-CARSTAIRS                              | 31 221  |                          |                         | 21 678   | 20 304  | 1 374  |   | 55 288                               |        |
| <b>CARVEL 053-02W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-CARVEL                                 | 514   |                          |                         | 361  |   | 361  |   | 13 649                               |        |
| <b>CASLAN 065-17W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| NISKU A                                      | 624   | 0.75                     | 0.05                    | 444  | 84  | 360  | 37  | 13 342                               | 1 955  |
| OTHER  | 570   |                          |                         | 348  | 58  | 290  |   | 10 756                               |        |
| TOTAL-CASLAN                                 | 1 194   |                          |                         | 792  | 142   | 650  |   | 24 098                               |        |
| <b>CASSILS 019-15W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| MILK RIVER A                                 | 2 481   | 0.70                     | 0.05                    | 1 650  |   |  | 36a   |                                      | 9 504  |
| MEDICINE HAT A                               | 1 237   | 0.70                     | 0.03                    | 840  |   |  | 36a   |                                      | 8 284  |
| MEDICINE HAT C                               | 206   | 0.50                     | 0.03                    | 100  |   |  | 36a   |                                      | 4 486  |
| SE ALTA GAS SYS (MU) TOTAL                   | 3 924   | 0.70                     | 0.05                    | 2 590  | 297   | 2 293  | 36a   | 83 259                               |        |
| OTHER  | 53  |                          |                         | 38   | 1   | 37   |   | 1 392                                |        |
| TOTAL-CASSILS                                | 3 977   |                          |                         | 2 628  | 298   | 2 330  |   | 84 651                               |        |
| <b>CASTLE (SA) 055-01W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-CASTLE                                 | 27  |                          |                         | 17   |   | 17   |   | 637                                  |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20                                    |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|---------------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISTRIBUTION AND REMARKS              |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |                                       |
| 0.70                        | 0.094    | 0.75        | 30 530              | 91   | 0.925    | 0.74                           | 2 773.3                    | 1981         | 1985                     | A&S                                   |
| 1.14                        | 0.124    | 0.80        | 27 890              | 89   | 0.893    | 0.74                           | 2 794.3                    | 1960         | 1985                     | A&S                                   |
| 0.80                        | 0.090    | 0.80        | 29 330              | 89   | 0.910    | 0.73                           | 2 774.0                    | 1981         | 1985                     |                                       |
| 1.80                        | 0.100    | 0.75        | 28 000              | 92   | 0.902    | 0.76                           | 2 837.4                    | 1981         | 1985                     |                                       |
| 1.00                        | 0.100    | 0.80        | 29 330              | 89   | 0.910    | 0.73                           | 2 792.2                    | 1981         | 1985                     |                                       |
|                             |          |             |                     |      |          |                                |                            | 1960         | 1985                     |                                       |
| 1.00                        | 0.130    | 0.90        | 22 950              | 91   | 0.866    | 0.71                           | 2 886.5                    | 1980         | 1983                     |                                       |
| 4.28                        | 0.105    | 0.80        | 24 540              | 90   | 0.881    | 0.69                           | 2 854.0                    | 1978         | 1985                     |                                       |
| 1.70                        | 0.090    | 0.75        | 22 600              | 91   | 0.870    | 0.70                           | 2 096.0                    | 1980         | 1982                     |                                       |
| 4.00                        | 0.140    | 0.85        | 22 600              | 91   | 0.870    | 0.70                           | 2 943.0                    | 1980         | 1983                     |                                       |
| 1.03                        | 0.100    | 0.70        | 22 470              | 94   | 0.855    | 0.73                           | 2 954.6                    | 1979         | 1983                     |                                       |
| 0.74                        | 0.077    | 0.65        | 26 000              | 77   | 0.875    | 0.71                           | 2 908.7                    | 1981         | 1983                     |                                       |
| 1.40                        | 0.075    | 0.65        | 22 200              | 92   | 0.852    | 0.73                           | 2 936.5                    | 1979         | 1983                     |                                       |
| 1.16                        | 0.095    | 0.70        | 26 750              | 78   | 0.883    | 0.71                           | 2 915.5                    | 1981         | 1982                     |                                       |
| 1.22                        | 0.077    | 0.80        | 19 800              | 78   | 0.835    | 0.69                           | 2 980.8                    | 1980         | 1983                     |                                       |
| 2.63                        | 0.094    | 0.80        | 22 800              | 93   | 0.882    | 0.68                           | 2 982.5                    | 1980         | 1982                     |                                       |
| 1.71                        | 0.080    | 0.85        | 26 900              | 90   | 0.924    | 0.65                           | 2 795.6                    | 1982         | 1985                     |                                       |
|                             |          |             |                     |      |          |                                |                            | 1978         | 1984                     | A&S PROGAS TCPL                       |
| 14.90                       | 0.110    | 0.85        | 16 730              | 71   | 0.765    | 0.78                           | 2 656.4                    | 1983         | 1983                     |                                       |
| 9.87                        | 0.099    | 0.80        | 23 740              | 93   | 0.859    | 0.77                           | 2 831.0                    | 1959         | 1984                     | A&S                                   |
| 11.10                       | 0.120    | 0.80        | 25 250              | 92   | 0.891    | 0.71                           | 2 870.5                    | 1981         | 1984                     | A&S                                   |
|                             |          |             |                     |      |          |                                |                            |              |                          |                                       |
| 7.88                        | 0.150    | 0.65        | 23 100              | 62   | 0.812    | 0.73                           | 2 066.3                    | 1979         | 1984                     | PANALTA                               |
| 5.01                        | 0.118    | 0.75        | 17 660              | 81   | 0.805    | 0.76                           | 2 135.5                    | 1976         | 1984                     |                                       |
| 2.86                        | 0.115    | 0.75        | 17 900              | 65   | 0.770    | 0.87                           | 2 180.2                    | 1976         | 1982                     |                                       |
| 2.30                        | 0.150    | 0.60        | 18 020              | 65   | 0.770    | 0.76                           | 2 158.8                    | 1979         | 1983                     |                                       |
|                             |          |             |                     |      |          |                                |                            | 1976         | 1984                     | TCPL                                  |
| 9.97                        | 0.130    | 0.75        | 23 100              | 62   | 0.792    | 0.78                           | 2 060.1                    | 1979         | 1982                     |                                       |
| 2.62                        | 0.124    | 0.70        | 23 100              | 63   | 0.803    | 0.74                           | 2 090.6                    | 1979         | 1982                     |                                       |
|                             |          |             |                     |      |          |                                |                            | 1979         | 1983                     | PANALTA                               |
|                             |          |             |                     |      |          |                                |                            |              |                          |                                       |
| 6.42                        | 0.079    | 0.80        | 26 130              | 93   | 0.850    | 0.92                           | 2 627.4                    | 1957         | 1983                     | A&S TCPL GAS CYCLING                  |
|                             |          |             |                     |      |          |                                |                            |              |                          |                                       |
|                             |          |             |                     |      |          | 0.83                           |                            | 1958         | 1976                     | A&S PROGAS                            |
| 3.13                        | 0.094    | 0.90        | 25 750              | 85   | 0.885    | 0.71                           | 2 644.1                    | 1958         | 1981                     | A&S PROGAS CONCURRENT PRODUCTION      |
|                             |          |             |                     |      |          | 0.71                           |                            | 1958         | 1981                     | A&S PROGAS CONCURRENT PRODUCTION      |
|                             |          |             |                     |      |          |                                |                            |              |                          |                                       |
| 17.48                       | 0.121    | 0.90        | 22 820              | 80   | 0.845    | 0.73                           | 2 461.1                    | 1958         | 1981                     | TCPL GAS CYCLING                      |
|                             |          |             |                     |      |          |                                |                            |              |                          |                                       |
| 9.10                        | 0.165    | 0.65        | 3 150               | 20   | 0.935    | 0.57                           | 586.2                      | 1976         | 1982                     | PANALTA                               |
|                             |          |             |                     |      |          |                                |                            |              |                          |                                       |
| 10.32                       | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.58                           | 355.7                      | 1910         | 1983                     | PART OF MILK RIV POOL NO.1 PRODUCTION |
| 3.45                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904         | 1982                     | DECLINE                               |
| 1.17                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973         | 1982                     | PART OF MED HAT POOL NO.1             |
|                             |          |             |                     |      |          |                                |                            | 1904         | 1983                     | PART OF MED HAT POOL NO.3             |
|                             |          |             |                     |      |          |                                |                            |              |                          | PANALTA TCPL                          |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE     | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9       |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|---------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA    |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |         |
| <b>CAVALIER 024-23W4</b><br>TOTAL-CAVALIER       | 109   |                          |                         | 64   |   | 64   |   | 2 416                                |         |
| <b>CAW (SA) 061-06W6</b><br>TOTAL-CAW            | 77  |                          |                         | 50   |   | 50   |   | 1 886                                |         |
| <b>CECIL 084-08W6</b><br>TOTAL-CECIL             | 520   |                          |                         | 394  | 25  | 369  |   | 13 876                               |         |
| <b>CECILIA 057-22W5</b><br>TOTAL-CECILIA         | 276   |                          |                         | 210  |   | 210  |   | 7 860                                |         |
| <b>CENTRON (SA) 023-26W4</b><br>TOTAL-CENTRON    | 17  |                          |                         | 9  |   | 9  |   | 337                                  |         |
| <b>CEREAL 026-07W4</b><br>TOTAL-CEREAL           | 136   |                          |                         | 87   |   | 87   |   | 3 359                                |         |
| <b>CESSFORD 025-13W4</b><br>MILK RIVER A         | 4 180   | 0.70                     | 0.05                    | 2 780  |   |  | 36 <sup>a</sup>                             |                                      | 43 824  |
| MEDICINE HAT A                                   | 10 014  | 0.70                     | 0.03                    | 6 800  |   |  | 36 <sup>a</sup>                             |                                      | 124 396 |
| MEDICINE HAT C                                   | 226   | 0.50                     | 0.03                    | 110  |   |  | 36 <sup>a</sup>                             |                                      | 9 287   |
| MEDICINE HAT D                                   | 990   | 0.50                     | 0.03                    | 480  |   |  | 36 <sup>a</sup>                             |                                      | 31 928  |
| SE ALTA GAS SYS(MU) TOTAL                        | 15 410  | 0.70                     | 0.05                    | 10 170   | 921   | 9 249  | 36 <sup>a</sup>                             | 335 831                              |         |
| SECOND WHITE SPECKS A                            | 576   | 0.75                     | 0.05                    | 410  | 50  | 360  | 36  | 13 072                               | 8 828   |
| BASAL COLORADO A SOLN                            | 543   | 0.23                     | 0.21                    | 99 <sup>b</sup>  |   |  | 39 <sup>a</sup>                             |                                      |         |
| BASAL COLORADO A ASSOC                           | 19 650  | 0.88                     | 0.04                    | 16 600 <sup>b</sup>  | 16 368 <sup>b</sup>   | 331  | 39 <sup>a</sup>                             | 12 763                               | 51 083  |
| BASAL COLORADO O                                 | 1 050   | 0.80                     | 0.10                    | 756  | 677   | 79   | 39 <sup>a</sup>                             | 3 046                                | 4 192   |
| BASAL COLORADO E                                 | 1 516   | 0.85                     | 0.10                    | 1 160  |   |  | 39 <sup>a</sup>                             |                                      | 3 595   |
| MANNVILLE N                                      | 114   | 0.85                     | 0.04                    | 93   |   |  | 37  |                                      | 440     |
| MANNVILLE O                                      | 202   | 0.75                     | 0.05                    | 145  |   |  | 37  |                                      | 200     |
| BSL COLO E & MANN N&O TOTAL                      | 1 832   | 0.85                     | 0.10                    | 1 398  | 1 280   | 118  | 39  | 8 406                                | 1 457   |
| MANNVILLE I ASSOC                                | 433   | 0.75                     | 0.04                    | 312  | 94  | 218  | 39  |                                      |         |
| MANNVILLE C ASSOC                                | 1 934   | 0.85                     | 0.10                    | 1 480 <sup>b</sup>   |   |  | 39 <sup>a</sup>                             |                                      | 2 829   |
| MANNVILLE C SOLN                                 | 1 188   | 0.65                     | 0.19                    | 625 <sup>b</sup>   |   |  | 39 <sup>a</sup>                             |                                      |         |
| MANNVILLE C ASSOC                                | 15  | 0.75                     | 0.10                    | 10 <sup>b</sup>  |   |  | 39 <sup>a</sup>                             |                                      | 64      |
| MANNVILLE C ASSOC                                | 36  | 0.75                     | 0.10                    | 24 <sup>b</sup>  |   |  | 39 <sup>a</sup>                             |                                      | 192     |
| MANNVILLE C TOTAL                                | 3 173   | 0.75                     | 0.15                    | 2 139 <sup>b</sup>   | 1 498 <sup>b</sup>  | 641  | 39 <sup>a</sup>                             | 24 717                               |         |
| MANNVILLE G                                      | 1 314   | 0.70                     | 0.04                    | 883  | 830   | 53   | 37 <sup>a</sup>                             | 1 984                                | 2 331   |
| MANNVILLE H                                      | 1 770   | 0.80                     | 0.04                    | 1 360  | 1 208   | 152  | 37 <sup>a</sup>                             | 5 689                                | 2 836   |
| MANNVILLE J                                      | 631   | 0.72                     | 0.04                    | 436  | 436   | < 1  | 37 <sup>a</sup>                             | -                                    | 1 971   |
| MANNVILLE P                                      | 555   | 0.90                     | 0.04                    | 479  | 399   | 80   | 37  | 2 994                                | 440     |
| MANNVILLE V                                      | 973   | 0.90                     | 0.04                    | 839  | 744   | 95   | 37 <sup>a</sup>                             | 3 556                                | 365     |
| MANNVILLE Y ASSOC                                |   | 0.85                     | 0.10                    |  |   |  | 39 <sup>a</sup>                             |                                      | 304     |
| MANNVILLE Z ASSOC                                |   | 0.85                     | 0.10                    |  |   |  | 39  |                                      | 214     |
| MANNVILLE Y&Z SOLN                               | 241   | 0.65                     | 0.30                    | 110 <sup>b</sup>   |   |  | 39  |                                      |         |
| MANNVILLE Y & Z TOTAL                            | 594   | 0.75                     | 0.15                    | 380 <sup>b</sup>   | 267 <sup>b</sup>  | 113  | 39 <sup>a</sup>                             | 4 357                                | 498     |
| MANNVILLE L                                      |   | 0.75                     | 0.05                    |  |   |  | 37 <sup>a</sup>                             |                                      | 2 484   |
| MANNVILLE CC                                     |   | 0.75                     | 0.05                    |  |   |  | 37 <sup>a</sup>                             |                                      |         |
| MANNVILLE L & CC TOTAL                           | 609   | 0.75                     | 0.05                    | 434  | 351   | 83   | 37 <sup>a</sup>                             | 3 107                                | 615     |
| MANNVILLE G2G                                    | 488   | 0.70                     | 0.10                    | 308  | 135   | 173  | 39  | 6 671                                | 2 038   |
| GLAUCONITIC T                                    | 345   | 0.80                     | 0.10                    | 248  |   |  | 39  |                                      | 2 455   |
| MANNVILLE HH ASSOC                               | 1 074   | 0.80                     | 0.10                    | 773  |   |  | 39  |                                      |         |
| GLAUC T & MANN HH TOTAL                          | 1 419   | 0.80                     | 0.10                    | 1 021  | 140   | 881  | 39  | 33 971                               | 1 615   |
| BANFF B ASSOC                                    | 383   | 0.85                     | 0.10                    | 293 <sup>b</sup>   |   |  | 37  |                                      | 26      |
| BANFF B ASSOC                                    | 2   | 0.75                     | 0.10                    | 1 <sup>b</sup>   |   |  | 37  |                                      | 72      |
| BANFF B ASSOC                                    | 6   | 0.75                     | 0.10                    | 5 <sup>b</sup>   |   |  | 37  |                                      |         |
| BANFF B SOLN                                     | 313   | 0.65                     | 0.12                    | 179 <sup>b</sup>   |   |  | 37  |                                      |         |
| BANFF B TOTAL                                    | 704   | 0.75                     | 0.10                    | 478 <sup>b</sup>   | 96 <sup>b</sup>   | 382  | 37  | 14 298                               |         |
| OTHER  | 10 874  |                          |                         | 7 177  | 2 212   | 4 965  |   | 189 506                              |         |
| TOTAL-CESSFORD                                   | 62 598  |                          |                         | 45 679   | 27 706  | 17 973   |   | 663 968                              |         |
| <b>CHAIN 033-17W4</b><br>TOTAL-CHAIN             | 795   |                          |                         | 527  | 97  | 430  |   | 16 288                               |         |
| <b>CHAMBERLAIN 052-23W4</b><br>TOTAL-CHAMBERLAIN | 7   |                          |                         | 5  |   | 5  |   | 221                                  |         |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18                       | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>LAST<br>REVIEWED | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                        |
| m                           | frac     | frac        | kPa                 | OC   | frac     | frac                           | m                          | YEAR                     | YEAR                     |  |
| 3.77                        | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.58                           | 355.7                      | 1910                     | 1983                     | PART OF MILK RIV POOL NO. 1 PRODUCTION DECLINE |
| 1.86                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904                     | 1982                     | PART OF MED HAT POOL NO. 1                     |
| 0.62                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973                     | 1982                     | PART OF MED HAT POOL NO. 3                     |
| 0.79                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 328.6                      | 1973                     | 1984                     | PART OF MED HAT POOL NO. 4                     |
| 0.84                        | 0.216    | 0.60        | 5 690               | 27   | 0.899    | 0.57                           | 630.0                      | 1904                     | 1984                     | CNG KANNGAZ PANALTA PROGAS TCPL                |
|                             |          |             |                     |      | 0.61     |                                |                            | 1939                     | 1982                     | PANALTA TCPL PART OF 2WS POOL NO. 1            |
|                             |          |             |                     |      |          |                                |                            | 1951                     | 1985                     | DOMEDOW PANALTA TCPL MATERIAL BALANCE          |
| 2.93                        | 0.265    | 0.60        | 8 810               | 27   | 0.836    | 0.61                           | 877.9                      | 1951                     | 1985                     | CONCURRENT PRODUCTION                          |
| 2.41                        | 0.244    | 0.60        | 7 600               | 28   | 0.838    | 0.65                           | 920.8                      | 1951                     | 1982                     | DOMEDOW PANALTA TCPL MATERIAL BALANCE          |
| 2.32                        | 0.215    | 0.50        | 8 680               | 27   | 0.822    | 0.64                           | 899.2                      | 1950                     | 1983                     | CONCURRENT PRODUCTION                          |
| 3.08                        | 0.212    | 0.50        | 976                 | 33   | 0.808    | 0.65                           | 1 012.9                    | 1951                     | 1977                     | TCPL MATERIAL BALANCE                          |
| 6.17                        | 0.233    | 0.60        | 8 720               | 33   | 0.823    | 0.61                           | 973.2                      | 1953                     | 1976                     | MATERIAL BALANCE                               |
| 1.55                        | 0.218    | 0.50        | 9 760               | 33   | 0.843    | 0.59                           | 1 017.4                    | 1950                     | 1983                     | MATERIAL BALANCE                               |
| 3.33                        | 0.240    | 0.70        | 9 720               | 33   | 0.756    | 0.72                           | 1 014.6                    | 1951                     | 1984                     | TCPL   |
| 1.23                        | 0.230    | 0.70        | 9 720               | 33   | 0.756    | 0.72                           | 1 023.5                    | 1951                     | 1981                     | TCPL PRODUCTION DECLINE CONCURRENT             |
| 0.92                        | 0.240    | 0.70        | 9 720               | 33   | 0.756    | 0.72                           | 1 025.4                    | 1951                     | 1982                     | CONCURRENT PRODUCTION                          |
| 4.08                        | 0.210    | 0.50        | 9 760               | 33   | 0.812    | 0.65                           | 1 033.9                    | 1951                     | 1981                     | CONCURRENT PRODUCTION                          |
| 4.30                        | 0.254    | 0.55        | 9 930               | 30   | 0.797    | 0.65                           | 933.3                      | 1951                     | 1982                     | TCPL CONCURRENT PRODUCTION                     |
| 2.90                        | 0.232    | 0.55        | 10 580              | 33   | 0.798    | 0.65                           | 1 035.7                    | 1951                     | 1982                     | TCPL MATERIAL BALANCE                          |
| 4.32                        | 0.230    | 0.50        | 9 620               | 35   | 0.819    | 0.65                           | 1 108.3                    | 1950                     | 1979                     | TCPL MATERIAL BALANCE                          |
| 2.81                        | 0.160    | 0.45        | 9 760               | 38   | 0.873    | 0.66                           | 1 158.2                    | 1958                     | 1982                     | TCPL MATERIAL BALANCE                          |
| 0.55                        | 0.222    | 0.70        | 9 680               | 29   | 0.818    | 0.63                           | 996.4                      | 1958                     | 1985                     | KANNGAZ TCPL MATERIAL BALANCE                  |
| 0.56                        | 0.236    | 0.65        | 9 680               | 29   | 0.801    | 0.65                           | 991.3                      | 1951                     | 1983                     | PRODUCTION DECLINE                             |
|                             |          |             |                     |      |          | 0.63                           |                            | 1951                     | 1983                     | PRODUCTION DECLINE                             |
| 3.03                        | 0.023    | 0.50        | 9 650               | 35   | 0.818    | 0.65                           | 1 107.6                    | 1951                     | 1985                     | TCPL CONCURRENT PRODUCTION                     |
| 2.04                        | 0.170    | 0.50        | 9 450               | 35   | 0.820    | 0.65                           | 1 087.1                    | 1962                     | 1985                     | MATERIAL BALANCE                               |
| 6.80                        | 0.178    | 0.60        | 9 810               | 42   | 0.810    | 0.67                           | 1 232.2                    | 1962                     | 1980                     | MATERIAL BALANCE                               |
| 1.64                        | 0.177    | 0.55        | 9 670               | 40   | 0.828    | 0.64                           | 1 282.0                    | 1962                     | 1980                     | TCPL   |
| 4.77                        | 0.152    | 0.55        | 9 830               | 38   | 0.819    | 0.69                           | 1 229.9                    | 1966                     | 1982                     | TCPL   |
| 2.53                        | 0.151    | 0.50        | 10 900              | 38   | 0.803    | 0.66                           | 1 195.0                    | 1966                     | 1984                     | PART OF GLAUC POOL NO. 4                       |
| 0.73                        | 0.151    | 0.50        | 10 900              | 38   | 0.803    | 0.66                           | 1 269.7                    | 1972                     | 1985                     | PART OF GLAUC POOL NO. 4                       |
| 0.94                        | 0.151    | 0.50        | 10 900              | 38   | 0.803    | 0.66                           | 1 287.3                    | 1966                     | 1985                     | TCPL PART OF GLAUC POOL NO. 4                  |
|                             |          |             |                     |      |          | 0.66                           |                            | 1973                     | 1985                     | CONCURRENT PRODUCTION                          |
|                             |          |             |                     |      |          |                                |                            | 1973                     | 1985                     | CONCURRENT PRODUCTION                          |
|                             |          |             |                     |      |          |                                |                            | 1973                     | 1985                     | TCPL CONCURRENT PRODUCTION                     |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE   | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8   | 9                       |
|--|---|--------------------------|-------------------------|--|---|--|---|---|-------------------------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |   | AREA                    |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ            |                         |
| <b>CHAMBERS 041-10W5</b><br>ELKTON 05-041-11<br>OTHER<br>TOTAL-CHAMBERS                      | 462<br>1 363<br>1 825   | 0.85                     | 0.10                    | 355<br>946<br>1 301  |   | 355<br>946<br>1 301  | 40  | 14 353<br>37 854<br>52 207                      | 200                     |
| <b>CHANDLER 059-02W4</b><br>TOTAL-CHANDLER   | 194   |                          |                         | 113  | 48  | 65   |   | 2 432   |                         |
| <b>CHARD 079-06W4</b><br>MCMURRAY B<br>OTHER<br>TOTAL-CHARD                                  | 3 129<br>294<br>3 423   | 0.75                     | 0.05                    | 2 230<br>147<br>2 377  | 215<br><br>215  | 2 015<br>147<br>2 162  | 43  | 86 746<br>6 074<br>92 820                       | 20 676                  |
| <b>CHARLIE 089-05W6</b><br>TOTAL-CHARLIE   | 368   |                          |                         | 242  |   | 242  |   | 9 060   |                         |
| <b>CHARLOTTE LAKE 060-04W4</b><br>COLONY G<br>OTHER<br>TOTAL-CHARLOTTE LAKE                  | 486<br>537<br>1 023   | 0.65                     | 0.05                    | 300<br>288<br>588  | 245<br>146<br>391   | 55<br>142<br>197   | 37  | 2 059<br>5 307<br>7 366                         | 4 679                   |
| <b>CHARM 103-09W6</b><br>TOTAL-CHARM   | 57  |                          |                         | 37   |   | 37   |   | 1 482   |                         |
| <b>CHARRON 069-16W4</b><br>GROSMONT A<br>OTHER<br>TOTAL-CHARRON                              | 578<br>1 333<br>1 911   | 0.60                     | 0.05                    | 330<br>750<br>1 080  | 305<br>97<br>402  | 25<br>653<br>678   | 37  | 927<br>24 593<br>25 520                         | 5 142                   |
| <b>CHAUVIN 043-01W4</b><br>TOTAL-CHAUVIN   | 670   |                          |                         | 449  | 4   | 445  |   | 16 531  |                         |
| <b>CHAUVIN SOUTH 042-02W4</b><br>TOTAL-CHAUVIN SOUTH   | 2 196   |                          |                         | 1 431  | 330   | 1 101  |   | 41 053  |                         |
| <b>CHEDDERSVILLE 037-07W5</b><br>LEDUC A<br>TOTAL-CHEDDERSVILLE                              | 1 681<br>1 681  | 0.70                     | 0.15                    | 1 000<br>1 000   | 156<br>156  | 844<br>844   | 38  | 31 912<br>31 912                                | 625                     |
| <b>CHERHILL 056-05W5</b><br>TOTAL-CHERHILL   | 3 733   |                          |                         | 2 186  | 308   | 1 878  |   | 73 787  |                         |
| <b>CHERPETA 074-19W4</b><br>TOTAL-CHERPETA   | 899   |                          |                         | 498  |   | 498  |   | 18 640  |                         |
| <b>CHERRY (SA) 009-13W4</b><br>TOTAL-CHERRY  | 22  |                          |                         | 16   |   | 16   |   | 545   |                         |
| <b>CHICKADEE 062-16W5</b><br>GETHING A<br>GETHING C<br>GETHING G<br>OTHER<br>TOTAL-CHICKADEE | 781<br>726<br>498<br>2 295<br>4 300                             | 0.75<br>0.65<br>0.75     | 0.05<br>0.10<br>0.10    | 557<br>425<br>336<br>1 580<br>2 898                                  | 106<br>32<br>10<br>120<br>268                                     | 451<br>393<br>326<br>1 460<br>2 630                                    | 37<br>40<br>37                              | 16 881<br>15 740<br>12 202<br>55 532<br>100 355 | 3 141<br>1 404<br>1 339 |
| <b>CHICKEN 061-07W6</b><br>TOTAL-CHICKEN   | 492   |                          |                         | 327  | 6   | 321  |   | 12 105  |                         |
| <b>CHIGWELL 041-24W4</b><br>MANNVILLE A<br>MANNVILLE J<br>OTHER<br>TOTAL-CHIGWELL            | 790<br>1 129<br>4 403<br>6 322                                  | 0.80<br>0.75             | 0.10<br>0.15            | 569<br>720<br>2 769<br>4 058   | 569<br>38<br>128<br>735   | < 1<br>682<br>2 641<br>3 323   | 42a<br>42                                   | -<br>28 849<br>109 839<br>138 688               | 694<br>992              |
| <b>CHIGWELL NORTH 042-24W4</b><br>TOTAL-CHIGWELL NORTH                                       | 123   |                          |                         | 79   |   | 79   |   | 3 016   |                         |
| <b>CHIN COULEE 007-14W4</b><br>TOTAL-CHIN COULEE   | 83  |                          |                         | 46   | 4   | 42   |   | 1 572   |                         |
| <b>CHINCHAGA 097-06W6</b><br>SLAVE POINT A<br>OTHER  | 1 389<br>158  | 0.80                     | 0.10                    | 1 000<br>111   | 71  | 929<br>111   | 37  | 34 772<br>4 363                                 | 2 386                   |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18                   | 19                       | 20                                  |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|----------------------|--------------------------|-------------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>LAST<br>YEAR | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS             |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |                      |                          |                                     |
| 14.87                       | 0.080    | 0.85        | 29 790              | 110  | 0.967    | 0.72                           | 3 398.8                    | 1973                 | 1974                     | ICPL                                |
| 4.34                        | 0.283    | 0.70        | 1 730               | 16   | 0.967    | 0.56                           | 247.7                      | 1957                 | 1985                     | PANALTA ICPL PART OF MCM POOL NO. 1 |
| 1.93                        | 0.299    | 0.70        | 2 430               | 12   | 0.943    | 0.57                           | 333.9                      | 1967                 | 1985                     |                                     |
| 7.57                        | 0.141    | 0.75        | 2 620               | 23   | 0.948    | 0.57                           | 463.6                      | 1974                 | 1985                     | PRODUCTION DECLINE                  |
| 15.58                       | 0.063    | 0.90        | 29 530              | 134  | 0.973    | 0.72                           | 3 555.6                    | 1967                 | 1982                     | PANALTA                             |
| 3.34                        | 0.125    | 0.45        | 13 840              | 73   | 0.859    | 0.67                           | 1 846.5                    | 1978                 | 1982                     | PANALTA PROGAS                      |
| 5.51                        | 0.130    | 0.50        | 14 200              | 66   | 0.825    | 0.66                           | 1 903.0                    | 1979                 | 1982                     | PROGAS                              |
| 3.46                        | 0.139    | 0.50        | 14 420              | 58   | 0.803    | 0.67                           | 1 900.5                    | 1977                 | 1982                     | PANALTA PROGAS                      |
| 7.38                        | 0.170    | 0.65        | 11 530              | 64   | 0.828    | 0.69                           | 1 571.2                    | 1952                 | 1985                     |                                     |
| 7.48                        | 0.159    | 0.75        | 11 930              | 56   | 0.808    | 0.69                           | 1 568.9                    | 1977                 | 1983                     | PANALTA                             |
| 7.13                        | 0.084    | 0.60        | 20 530              | 87   | 0.824    | 0.84                           | 2 152.2                    | 1973                 | 1984                     | PANALTA MATERIAL BALANCE            |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE   | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8   | 9                 |
|--|---|--------------------------|-------------------------|--|---|--|---|---|-------------------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |   | AREA              |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ          |                   |
| CHINCHAGA 097-06W6<br>(CONTINUED)<br>TOTAL-CHINCHAGA   | 1 547   |                          |                         | 1 111  | 71  | 1 040  |   | 39 135  |                   |
| CHINCHAGA NORTH 098-07W6<br>TOTAL-CHINCHAGA NORTH  | 777   |                          |                         | 509  | 108   | 401  |   | 16 172  |                   |
| CHING (SA) 078-05W6<br>TOTAL-CHING   | 73  |                          |                         | 53   |   | 53   |   | 1 944   |                   |
| CHINIKI (SA) 024-07W5<br>RUNDLE 04-024-07<br>TOTAL-CHINIKI   | 932<br>932  | 0.90                     | 0.20                    | 671<br>671   |   | 671<br>671   | 39  | 26 122<br>26 122                              | 200               |
| CHINOOK 029-08W4<br>BELLY RIVER A<br>OTHER<br>TOTAL-CHINOOK  | 489<br>538<br>1 027   | 0.65                     | 0.05                    | 301<br>356<br>657  | 275<br>12<br>287  | 26<br>344<br>370   | 38  | 993<br>13 277<br>14 270                       | 4 268             |
| CHINOOK RIDGE (SA) 065-13W6<br>CADOTTE 12-065-13<br>NOTIKWIN 12-065-13<br>U BELLOY 11-065-13<br>OTHER<br>TOTAL-CHINOOK RIDGE | 890<br>569<br>750<br>352<br>2 561                               | 0.90<br>0.90<br>0.80     | 0.10<br>0.10<br>0.25    | 721<br>462<br>450<br>254<br>1 887                                    |   | 721<br>462<br>450<br>254<br>1 887                                      | 38<br>38<br>38                              | 27 528<br>17 639<br>17 181<br>9 698<br>72 046 | 440<br>200<br>200 |
| CHIP LAKE 053-10W5<br>LOWER MANNVILLE A<br>OTHER<br>TOTAL-CHIP LAKE  | 422<br>113<br>535   | 0.90                     | 0.10                    | 342<br>74<br>416   | 269<br>269  | 73<br>74<br>147  | 42  | 3 088<br>2 914<br>6 002                       | 587               |
| CHIPMUNK (SA) 082-13W5<br>TOTAL-CHIPMUNK   | 25  |                          |                         | 18   |   | 18   |   | 661   |                   |
| CHISHOLM 068-01W5<br>TOTAL-CHISHOLM  | 1 217   |                          |                         | 808  | 140   | 668  |   | 25 798  |                   |
| CINDY 077-01W6<br>TOTAL-CINDY  | 235   |                          |                         | 168  | 55  | 113  |   | 3 428   |                   |
| CLAIR 073-05W6<br>TOTAL-CLAIR  | 46  |                          |                         | 29   |   | 29   |   | 1 169   |                   |
| CLANDONALD (SA) 051-06W4<br>TOTAL-CLANDONALD   | 188   |                          |                         | 125  |   | 125  |   | 4 679   |                   |
| CLARESHOLM 013-26W4<br>TOTAL-CLARESHOLM  | 1 062   |                          |                         | 706  | 79  | 627  |   | 26 284  |                   |
| CLAY 059-14W4<br>VIKING A<br>OTHER<br>TOTAL-CLAY   | 1 137<br>1 193<br>2 330   | 0.80                     | 0.05                    | 864<br>793<br>1 657  | 1<br>196<br>197   | 863<br>597<br>1 460  | 37  | 31 655<br>22 331<br>53 986                    | 19 603            |
| CLAYHURST 083-05W6<br>TOTAL-CLAYHURST  | 14  |                          |                         | 7  |   | 7  |   | 262   |                   |
| CLEAR HILLS (SA) 088-11W6<br>TOTAL-CLEAR HILLS   | 206   |                          |                         | 129  |   | 129  |   | 5 119   |                   |
| CLEAR PRAIRIE 091-12W6<br>TOTAL-CLEAR PRAIRIE  | 330   |                          |                         | 211  |   | 211  |   | 7 916   |                   |
| CLEARWATER (SA) 035-12W5<br>TURNER VALLEY 32-035-12<br>TOTAL-CLEARWATER  | 669<br>669  | 0.75                     | 0.15                    | 426<br>426   |   | 426<br>426   | 38  | 16 107<br>16 107                              | 200               |
| CLIFFDALE (SA) 084-17W5<br>TOTAL-CLIFFDALE   | 34  |                          |                         | 19   |   | 19   |   | 761   |                   |
| CLIVE 040-24W4<br>D-2 A POOL 1 ASSOC<br>D-2 A POOL 1 SOLN  | 175<br>1 097  | 0.85<br>0.45             | 0.30<br>0.40            | 104b<br>296b   |   |  | 39a<br>39a                                  |   | 293               |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18                   | 19                       | 20                                |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|----------------------|--------------------------|-----------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>LAST<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS           |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |                      |                          |                                   |
| 45.31                       | 0.049    | 0.80        | 23 670              | 84   | 0.885    | 0.70                           | 2 630.9                    | 1979                 | 1980                     | BER                               |
| 2.96                        | 0.338    | 0.65        | 1 690               | 11   | 0.960    | 0.58                           | 244.4                      | 1967                 | 1976                     | CWNGNUL                           |
| 7.09                        | 0.200    | 0.70        | 22 750              | 98   | 0.850    | 0.80                           | 2 807.1                    | 1956                 | 1981                     | BER                               |
| 9.87                        | 0.200    | 0.70        | 23 440              | 112  | 0.860    | 0.80                           | 2 881.6                    | 1956                 | 1981                     | BER                               |
| 19.80                       | 0.120    | 0.65        | 37 510              | 150  | 1.038    | 0.70                           | 4 310.0                    | 1979                 | 1983                     | BER                               |
| 2.34                        | 0.140    | 0.80        | 21 370              | 69   | 0.828    | 0.70                           | 1 879.7                    | 1950                 | 1985                     | TCPL MATERIAL BALANCE             |
| 1.03                        | 0.253    | 0.50        | 4 180               | 18   | 0.918    | 0.58                           | 454.4                      | 1949                 | 1982                     | MIP PANALTA PART OF VIK POOL NO.6 |
| 28.02                       | 0.065    | 0.85        | 28 840              | 111  | 0.989    | 0.65                           | 4 156.5                    | 1980                 | 1981                     | BER                               |
| 5.79                        | 0.065    | 0.85        | 17 100              | 67   | 0.733    | 0.87<br>0.87                   | 1 850.7                    | 1951<br>1951         | 1983<br>1983             | CONING GAS CAP<br>CONING GAS CAP  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>CLIVE 040-24W4 (CONTINUED)</b>            |   |                          |                         |  |   |  |   |                                      |       |
| D-2 A POOL 2 ASSOC                           | 72  | 0.85                     | 0.25                    | 46 <sup>b</sup>  |   |  | 39 <sup>a</sup>                             |                                      | 259   |
| D-2 A POOL 3 ASSOC                           | 984   | 0.85                     | 0.30                    | 585 <sup>b</sup>   |   |  | 39 <sup>a</sup>                             |                                      | 1 345 |
| D-2 A POOL 4 ASSOC                           | 4   | 0.85                     | 0.25                    | 2 <sup>b</sup>   |   |  | 39 <sup>a</sup>                             |                                      | 16    |
| D-2 A TOTAL                                  | 2 332   | 0.65                     | 0.35                    | 1 033 <sup>b</sup>   | 4 11 <sup>b</sup>   | 622  | 39 <sup>a</sup>                             | 24 445                               |       |
| D-3 A POOL 1 ASSOC                           | 167   | 0.85                     | 0.35                    | 92   |   |  | 39 <sup>a</sup>                             |                                      | 420   |
| D-3 A POOL 1 SOLN                            | 2 069   | 0.53                     | 0.35                    | 713  |   |  | 39 <sup>a</sup>                             |                                      |       |
| D-3 A POOL 2 ASSOC                           | 383   | 0.85                     | 0.35                    | 211  |   |  | 39 <sup>a</sup>                             |                                      | 516   |
| D-3 A POOL 3 ASSOC                           | 384   | 0.85                     | 0.35                    | 212  |   |  | 39 <sup>a</sup>                             |                                      | 427   |
| D-3 A POOL 4 ASSOC                           | 108   | 0.85                     | 0.35                    | 60   |   |  | 39 <sup>a</sup>                             |                                      | 317   |
| D-3 A TOTAL                                  | 3 111   | 0.65                     | 0.35                    | 1 288  | 600   | 688  | 39 <sup>a</sup>                             | 27 039                               |       |
| OTHER  | 2 162   |                          |                         | 1 406  | 172   | 1 234  |   | 46 615                               |       |
| TOTAL-CLIVE                                  | 7 605   |                          |                         | 3 727  | 1 183   | 2 544  |   | 98 099                               |       |
| <b>CLOUSTON (SA) 071-24W5</b>                |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-CLOUSTON                               | 24  |                          |                         | 16   |   | 16   |   | 599                                  |       |
| <b>CLOVER 061-17W5</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-CLOVER                                 | 242   |                          |                         | 166  | 34  | 132  |   | 5 305                                |       |
| <b>CLYDE LAKE 073-10W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-CLYDE LAKE                             | 55  |                          |                         | 30   |   | 30   |   | 1 123                                |       |
| <b>CLYDEN 075-13W4</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-CLYDEN                                 | 336   |                          |                         | 206  |   | 206  |   | 7 710                                |       |
| <b>COALDALE 008-20W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-COALDALE                               | 653   |                          |                         | 328  | 211   | 117  |   | 4 424                                |       |
| <b>CODDIN (SA) 088-19W5</b>                  |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-CODDIN                                 | 7   |                          |                         | 5  |   | 5  |   | 187                                  |       |
| <b>COLD LAKE 063-02W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| COLONY A                                     | 545   | 0.80                     | 0.05                    | 414  | 328   | 86   | 37  | 3 219                                | 710   |
| COLONY D                                     | 529   | 0.80                     | 0.05                    | 402  | 191   | 211  | 37  | 7 898                                | 945   |
| OTHER  | 287   |                          |                         | 159  | 50  | 109  |   | 4 079                                |       |
| TOTAL-COLD LAKE                              | 1 361   |                          |                         | 975  | 569   | 406  |   | 15 196                               |       |
| <b>COLEMAN 009-05W5</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| RUNDLE A                                     | 4 718   | 0.75                     | 0.35                    | 2 300  |   |  | 39  |                                      | 1 274 |
| PALLISER B                                   | 3 428   | 0.75                     | 0.30                    | 1 800  |   |  | 39  |                                      | 630   |
| RUNDLE A & PALLISER B TOTAL                  | 8 146   | 0.75                     | 0.35                    | 4 100  | 1 510   | 2 590  | 39  | 100 829                              |       |
| TOTAL-COLEMAN                                | 8 146   |                          |                         | 4 100  | 1 510   | 2 590  |   | 100 829                              |       |
| <b>COLINTON 064-20W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-COLINTON                               | 272   |                          |                         | 170  | 35  | 135  |   | 5 053                                |       |
| <b>COLDRADD 090-04W6</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-COLDRADD                               | 263   |                          |                         | 150  | 15  | 135  |   | 5 306                                |       |
| <b>COLT 058-24W5</b>                         |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-COLT                                   | 539   |                          |                         | 385  | 3   | 382  |   | 14 366                               |       |
| <b>COLUMBIA 042-16W5</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-COLUMBIA                               | 1 456   |                          |                         | 767  | 182   | 585  |   | 23 563                               |       |
| <b>COMPEER 033-02W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-COMPEER                                | 444   |                          |                         | 324  | 136   | 188  |   | 7 037                                |       |
| <b>COMREY 001-07W4</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| BOW ISLAND                                   | 714   | 0.80                     | 0.03                    | 555  | 545   | 10   | 35  | 352                                  | 2 447 |
| OTHER  | 993   |                          |                         | 670  | 124   | 546  |   | 20 087                               |       |
| TOTAL-COMREY                                 | 1 707   |                          |                         | 1 225  | 669   | 556  |   | 20 439                               |       |
| <b>CONKLIN (SA) 075-07W4</b>                 |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-CONKLIN                                | 55  |                          |                         | 28   |   | 28   |   | 1 058                                |       |
| <b>CONNEMARA 016-27W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| RUNDLE 04-016-27                             | 521   | 0.90                     | 0.15                    | 399  |   | 399  | 41  | 16 431                               | 200   |
| OTHER  | 57  |                          |                         | 27   |   | 27   |   | 1 021                                |       |
| TOTAL-CONNEMARA                              | 578   |                          |                         | 426  |   | 426  |   | 17 452                               |       |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20                          |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|-----------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS     |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |                             |
| 2.66                        | 0.063    | 0.85        | 17 090              | 67   | 0.733    | 0.87                           | 1 834.0                    | 1951         | 1984                     | TCPL PANALTA CONING GAS CAP |
| 6.46                        | 0.063    | 0.85        | 17 070              | 67   | 0.675    | 0.90                           | 1 849.0                    | 1951         | 1985                     |                             |
| 2.13                        | 0.063    | 0.85        | 17 060              | 67   | 0.739    | 0.83                           | 1 883.7                    | 1951         | 1984                     |                             |
| 4.10                        | 0.056    | 0.85        | 17 570              | 67   | 0.722    | 0.87                           | 1 879.2                    | 1952         | 1984                     |                             |
| 7.62                        | 0.056    | 0.85        | 17 600              | 67   | 0.722    | 0.87                           | 1 912.6                    | 1952         | 1984                     |                             |
| 8.12                        | 0.056    | 0.85        | 17 570              | 57   | 0.651    | 0.93                           | 1 880.0                    | 1952         | 1985                     |                             |
| 3.53                        | 0.056    | 0.85        | 17 550              | 67   | 0.722    | 0.87                           | 1 873.6                    | 1952         | 1985                     |                             |
|                             |          |             |                     |      |          |                                |                            | 1952         | 1984                     |                             |
|                             |          |             |                     |      |          |                                |                            |              |                          |                             |
|                             |          |             |                     |      |          |                                |                            |              |                          |                             |
|                             |          |             |                     |      |          |                                |                            |              |                          | PANALTA TCPL                |
| 1.60                        | 0.310    | 0.70        | 2 300               | 20   | 0.952    | 0.57                           | 269.1                      | 1952         | 1983                     | LOC U MATERIAL BALANCE      |
| 2.27                        | 0.310    | 0.70        | 2 300               | 18   | 0.950    | 0.57                           | 270.1                      | 1952         | 1980                     | LOC U MATERIAL BALANCE      |
| 27.86                       | 0.050    | 0.80        | 31 600              | 67   | 0.850    | 0.76                           | 3 043.4                    | 1969         | 1984                     | MATERIAL BALANCE            |
| 41.70                       | 0.050    | 0.80        | 33 700              | 102  | 0.953    | 0.71                           | 3 605.0                    | 1969         | 1984                     | MATERIAL BALANCE            |
|                             |          |             |                     |      |          |                                |                            | 1969         | 1984                     | A&S                         |
| 5.86                        | 0.250    | 0.50        | 5 340               | 27   | 0.915    | 0.59                           | 755.3                      | 1952         | 1983                     | CMG MATERIAL BALANCE        |
| 12.19                       | 0.120    | 0.85        | 20 820              | 68   | 0.828    | 0.72                           | 2 288.1                    | 1956         | 1979                     | PRDGAS                      |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE        | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9       |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|---------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA    |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |         |
| <b>CONNORSVILLE 025-15W4</b><br>MILK RIVER A        | 1 017   | 0.70                     | 0.05                    | 676  |   |  | 36a   |                                      | 16 500  |
| MEDICINE HAT A                                      | 2 846   | 0.70                     | 0.03                    | 1 920  |   |  | 36a   |                                      | 25 579  |
| SE ALTA GAS SYS(MU) TOTAL                           | 3 863   | 0.70                     | 0.05                    | 2 596  | 60  | 2 536  | 36a   | 92 082                               |         |
| VIKING A  | 527   | 0.60                     | 0.05                    | 300  | 144   | 156  | 37  | 5 839                                | 2 506   |
| GLAUCONITIC A                                       | 298   | 0.85                     | 0.05                    | 241  |   |  | 41  |                                      | 440     |
| GLAUCONITIC B                                       | 31  | 0.75                     | 0.05                    | 22   |   |  | 41  |                                      | 128     |
| GLAUCONITIC C                                       | 234   | 0.75                     | 0.05                    | 166  |   |  | 41  |                                      | 738     |
| GLAUCONITIC E                                       | 266   | 0.75                     | 0.05                    | 190  |   |  | 41  |                                      | 200     |
| ELLERSLIE A   | 3 750   | 0.80                     | 0.10                    | 2 700  |   |  | 41  |                                      | 11 164  |
| GLAUC ABCE & ELRSL A TOTAL                          | 4 579   | 0.80                     | 0.10                    | 3 319  | 1 143   | 2 176  | 41  | 89 608                               |         |
| OTHER   | 1 254   |                          |                         | 877  | 113   | 764  |   | 30 819                               |         |
| TOTAL-CONNORSVILLE                                  | 10 223  |                          |                         | 7 092  | 1 460   | 5 632  |   | 218 348                              |         |
| <b>COOKING LAKE 052-22W4</b><br>TOTAL-COOKING LAKE  | 188   |                          |                         | 120  | 9   | 111  |   | 4 115                                |         |
| <b>CORAL 046-05W5</b><br>TOTAL-CORAL                | 191   |                          |                         | 120  |   | 120  |   | 4 806                                |         |
| <b>CORBETT 061-07W5</b><br>VIKING A                 | 551   | 0.90                     | 0.05                    | 471  | 422   | 49   | 38  | 1 853                                | 1 662   |
| OTHER   | 422   |                          |                         | 288  | 10  | 278  |   | 10 976                               |         |
| TOTAL-CORBETT                                       | 973   |                          |                         | 759  | 432   | 327  |   | 12 829                               |         |
| <b>CORDELL 042-16W5</b><br>TURNER VALLEY 2042-16    | 1 082   | 0.50                     | 0.10                    | 487  |   | 487  | 40  | 19 529                               | 400     |
| TURNER VALLEY 1042-16                               | 1 121   | 0.50                     | 0.10                    | 505  |   | 505  | 40  | 20 251                               | 600     |
| TOTAL-CORDELL                                       | 2 203   |                          |                         | 992  |   | 992  |   | 39 780                               |         |
| <b>CORNER 080-09W4</b><br>TOTAL-CORNER              | 6   |                          |                         | 3  |   | 3  |   | 112                                  |         |
| <b>CORNWALL 070-26W5</b><br>TOTAL-CORNWALL          | 241   |                          |                         | 171  |   | 171  |   | 6 347                                |         |
| <b>CORRIN 061-13W4</b><br>VIKING A                  | 1 145   | 0.85                     | 0.05                    | 924  |   | 924  | 37  | 34 585                               | 8 712   |
| OTHER   | 706   |                          |                         | 451  |   | 451  |   | 16 881                               |         |
| TOTAL-CORRIN  | 1 851   |                          |                         | 1 375  |   | 1 375  |   | 51 466                               |         |
| <b>CDSWAY 030-26W4</b><br>TOTAL-CDSWAY              | 179   |                          |                         | 121  | 11  | 110  |   | 4 576                                |         |
| <b>COTTONWOOD (SA) 083-05W4</b><br>TOTAL-COTTONWOOD | 171   |                          |                         | 82   |   | 82   |   | 3 530                                |         |
| <b>COUNTESS 020-16W4</b><br>MILK RIVER A            | 8 857   | 0.70                     | 0.05                    | 5 890  |   |  | 36a   |                                      | 77 352  |
| MEDICINE HAT A                                      | 11 193  | 0.70                     | 0.03                    | 7 600  |   |  | 36a   |                                      | 104 704 |
| MEDICINE HAT C                                      | 154   | 0.50                     | 0.03                    | 75   |   |  | 36a   |                                      | 5 302   |
| MEDICINE HAT D                                      | 94  | 0.50                     | 0.03                    | 46   |   |  | 36a   |                                      | 4 518   |
| SE ALTA GAS SYS(MU) TOTAL                           | 20 298  | 0.70                     | 0.05                    | 13 611   | 613   | 12 998   | 36a   | 471 957                              |         |
| BOW ISLAND A  | 1 511   | 0.85                     | 0.05                    | 1 220  | 483   | 737  | 38a   | 27 866                               | 8 700   |
| BASAL COLORADO A                                    | 5 170   | 0.91                     | 0.05                    | 4 470  | 4 214   | 256  | 38a   | 9 679                                | 14 468  |
| UPPER MANNVILLE D SOLN                              | 594   | 0.39                     | 0.25                    | 174b   |   |  | 38a   |                                      |         |
| UPPER MANNVILLE D ASSOC                             | 235   | 0.75                     | 0.10                    | 158b   | 345b  | 13   | 38a   | 496                                  | 421     |
| UPPER MANNVILLE S                                   | 460   | 0.80                     | 0.05                    | 350  | 252   | 98   | 38  | 3 742                                | 582     |
| UPPER MANNVILLE EE                                  | 473   | 0.80                     | 0.10                    | 340  | 173   | 167  | 38  | 6 376                                | 1 670   |
| OTHER   | 7 329   |                          |                         | 4 662  | 1 529   | 3 133  |   | 119 422                              |         |
| TOTAL-COUNTESS                                      | 36 070  |                          |                         | 24 985   | 7 609   | 17 376   |   | 638 546                              |         |
| <b>COUTTS 001-16W4</b><br>TOTAL-COUTTS              | 169   |                          |                         | 112  |   | 112  |   | 4 822                                |         |
| <b>COYOTE 028-15W4</b><br>TOTAL-COYOTE              | 711   |                          |                         | 487  | 64  | 423  |   | 15 856                               |         |
| <b>CRAIGEND 064-13W4</b><br>VIKING A                | 9 474   | 0.50                     | 0.05                    | 4 500  | 8   | 4 492  | 37  | 168 136                              | 71 137  |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS  |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |  |
| 2.44                        | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.58                           | 355.7                      | 1910         | 1983                     | PART OF MILK RIV POOL NO. 1 PRODUCTION<br>DECLINE                        |
| 2.56                        | 0.170    | 0.55        | 3 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904         | 1978                     | PART OF MED HAT POOL NO. 1   |
| 2.23                        | 0.210    | 0.65        | 7 570               | 36   | 0.885    | 0.59                           | 926.3                      | 1956         | 1980                     | CWNGNUL CNG KANNGAZ PROGAS TCPL PANALTA<br>TCPL PANALTA MATERIAL BALANCE |
| 6.17                        | 0.170    | 0.60        | 9 260               | 29   | 0.810    | 0.61                           | 1 064.7                    | 1963         | 1982                     | PART OF ELRSL POOL NO. 1   |
| 2.70                        | 0.200    | 0.45        | 9 310               | 40   | 0.855    | 0.61                           | 1 102.5                    | 1964         | 1984                     | PART OF ELRSL POOL NO. 1   |
| 1.85                        | 0.250    | 0.65        | 9 340               | 29   | 0.835    | 0.61                           | 1 073.8                    | 1975         | 1976                     | PART OF ELRSL POOL NO. 1   |
| 11.30                       | 0.190    | 0.60        | 9 690               | 42   | 0.848    | 0.65                           | 1 074.9                    | 1976         | 1982                     | PART OF ELRSL POOL NO. 1   |
| 3.45                        | 0.179    | 0.50        | 9 720               | 35   | 0.825    | 0.65                           | 1 115.1                    | 1963         | 1983                     | PART OF ELRSL POOL NO. 1   |
|                             |          |             |                     |      |          |                                |                            | 1963         | 1984                     | KANNGAZ PANALTA PROGAS TCPL PART OF ELRSL<br>POOL NO. 1                  |
| 2.06                        | 0.200    | 0.55        | 8 270               | 44   | 0.884    | 0.65                           | 1 024.2                    | 1971         | 1982                     | TCPL MATERIAL BALANCE  |
| 7.15                        | 0.065    | 0.85        | 29 500              | 96   | 0.956    | 0.64                           | 3 672.2                    | 1979         | 1984                     | TCPL BER   |
| 10.14                       | 0.053    | 0.80        | 29 660              | 97   | 0.953    | 0.64                           | 3 545.9                    | 1979         | 1984                     | TCPL BER   |
| 1.86                        | 0.280    | 0.60        | 4 030               | 21   | 0.927    | 0.57                           | 399.0                      | 1949         | 1982                     | CNG PANALTA PART OF VIK POOL NO. 6                                       |
| 4.52                        | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.58                           | 355.7                      | 1910         | 1983                     | PART OF MILK RIV POOL NO. 1 PRODUCTION<br>DECLINE                        |
| 2.47                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904         | 1982                     | PART OF MED HAT POOL NO. 1   |
| 0.74                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973         | 1982                     | PART OF MED HAT POOL NO. 3   |
| 0.53                        | 0.139    | 0.60        | 4 450               | 19   | 0.921    | 0.57                           | 487.7                      | 1973         | 1985                     | PART OF MED HAT POOL NO. 4   |
| 1.78                        | 0.229    | 0.55        | 7 310               | 33   | 0.877    | 0.60                           | 889.1                      | 1904         | 1985                     | PANALTA PROGAS TCPL  |
| 1.19                        | 0.182    | 0.70        | 8 470               | 37   | 0.875    | 0.61                           | 1 060.4                    | 1951         | 1993                     | TCPL   |
| 2.58                        | 0.268    | 0.65        | 11 000              | 35   | 0.819    | 0.64                           | 1 050.1                    | 1951         | 1980                     | TCPL MATERIAL BALANCE  |
| 3.70                        | 0.240    | 0.75        | 10 420              | 49   | 0.867    | 0.59                           | 1 279.2                    | 1967         | 1985                     | TCPL CONCURRENT PRODUCTION   |
| 2.67                        | 0.176    | 0.55        | 9 950               | 39   | 0.828    | 0.64                           | 1 210.1                    | 1972         | 1982                     | TCPL CONCURRENT PRODUCTION   |
|                             |          |             |                     |      |          |                                |                            | 1977         | 1985                     | TCPL MATERIAL BALANCE  |
| 2.53                        | 0.270    | 0.55        | 3 350               | 16   | 0.930    | 0.58                           | 338.1                      | 1949         | 1984                     | CWNGNUL CNG KANNGAZ MIP PANALTA TCPL PART                                |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE     | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>CRAIGEND 064-13W4<br/>(CONTINUED)</b>         |   |                          |                         |  |   |  |   |                                      |        |
| GRAND RAPIDS A                                   | 992   | 0.70                     | 0.05                    | 660  | 277   | 383  | 37  | 14 336                               | 8 180  |
| GRAND RAPIDS H                                   | 483   | 0.75                     | 0.05                    | 344  | 130   | 214  | 37  | 8 010                                | 252    |
| GRAND RAPIDS P                                   | 580   | 0.65                     | 0.05                    | 358  | 103   | 255  | 37  | 9 545                                | 965    |
| MCMURRAY C                                       | 1 578   | 0.60                     | 0.05                    | 900  | 511   | 389  | 37  | 14 560                               | 12 862 |
| GROSMONT A                                       | 5 380   | 0.45                     | 0.05                    | 2 300  | 2 023   | 277  | 37  | 10 368                               | 36 190 |
| OTHER  | 7 102   |                          |                         | 4 363  | 1 537   | 2 826  |   | 105 751                              |        |
| TOTAL-CRAIGEND                                   | 25 589  |                          |                         | 13 425   | 4 589   | 8 836  |   | 330 706                              |        |
| <b>CRAIGMYLE 032-17W4<br/>TOTAL-CRAIGMYLE</b>    | 1 711   |                          |                         | 1 130  | 70  | 1 060  |   | 40 518                               |        |
| <b>CRANBERRY 096-04W6<br/>DEBOLT A</b>           | 2 587   | 0.70                     | 0.05                    | 1 720  | 336   | 1 384  | 40  | 55 429                               | 6 069  |
| SLAVE POINT A                                    | 13 273  | 0.85                     | 0.15                    | 9 590  | 1 517   | 8 073  | 41  | 332 446                              | 25 055 |
| SLAVE POINT B                                    | 600   | 0.75                     | 0.15                    | 383  | 337   | 46   | 41  | 1 894                                | 694    |
| GILWOOD 096-04                                   | 624   | 0.80                     | 0.10                    | 449  |   | 449  | 41  | 18 490                               | 797    |
| OTHER  | 559   |                          |                         | 379  | 50  | 329  |   | 13 033                               |        |
| TOTAL-CRANBERRY                                  | 17 643  |                          |                         | 12 521   | 2 240   | 10 281   |   | 421 292                              |        |
| <b>CRANFORD 008-19W4<br/>TOTAL-CRANFORD</b>      | 111   |                          |                         | 68   | 65  | 3  |   | 114                                  |        |
| <b>CRESSDAY (SA) 003-01W4<br/>TOTAL-CRESSDAY</b> | 57  |                          |                         | 41   |   | 41   |   | 1 535                                |        |
| <b>CROOKED 069-23W4<br/>TOTAL-CROOKED</b>        | 606   |                          |                         | 388  | 12  | 376  |   | 13 956                               |        |
| <b>CROSSFIELD 026-01W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| BASAL QUARTZ A                                   | 1 583   | 0.92                     | 0.19                    | 1 180  | 890   | 290  | 38a   | 11 072                               | 4 175  |
| BASAL QUARTZ G                                   | 396   | 0.90                     | 0.15                    | 303  | 232   | 71   | 38a   | 2 711                                | 200    |
| BASAL QUARTZ C                                   |   | 0.70                     | 0.15                    |  |   |  | 38a   |                                      | 440    |
| BASAL QUARTZ D                                   |   | 0.70                     | 0.15                    |  |   |  | 38a   |                                      | 440    |
| BASAL QUARTZ C & D TOTAL                         | 817   | 0.70                     | 0.15                    | 486  | 298   | 188  | 38a   | 7 178                                |        |
| RUNDLE A   | 32 359  | 0.92                     | 0.13                    | 25 900   | 20 294  | 5 606  | 41a   | 227 884                              | 13 449 |
| RUNDLE B   | 31 370  | 0.92                     | 0.21                    | 22 800   | 19 178  | 3 622  | 40a   | 145 061                              | 8 656  |
| RUNDLE F   | 2 103   | 0.85                     | 0.15                    | 1 520  | 868   | 652  | 40a   | 26 113                               | 1 654  |
| RUNDLE H   | 569   | 0.90                     | 0.15                    | 437  | 305   | 132  | 40a   | 5 287                                | 200    |
| RUNDLE I   | 718   | 0.85                     | 0.15                    | 518  | 318   | 200  | 40a   | 8 010                                | 431    |
| WABAMUN A  | 37 500  | 0.75                     | 0.52                    | 13 500   | 10 116  | 3 384  | 39  | 130 622                              | 29 146 |
| OTHER  | 5 575   |                          |                         | 1 742  | 327   | 1 415  |   | 54 971                               |        |
| TOTAL-CROSSFIELD                                 | 112 990   |                          |                         | 68 386   | 52 826  | 15 560   |   | 618 909                              |        |
| <b>CROSSFIELD EAST 029-01W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| ELKTON A SOLN                                    | 207   | 0.60                     | 0.20                    | 99b  |   |  | 43a   |                                      |        |
| ELKTON A ASSOC                                   | 1 571   | 0.90                     | 0.12                    | 1 240b   | 1 202b  | 137  | 43a   | 5 846                                | 1 147  |
| ELKTON D SOLN                                    | 516   | 0.60                     | 0.25                    | 232b   |   |  | 43  |                                      |        |
| ELKTON D ASSOC                                   | 1 733   | 0.85                     | 0.12                    | 1 300b   | 1 004b  | 528  | 43  | 22 530                               | 1 264  |
| ELKTON C   | 706   | 0.85                     | 0.10                    | 540  | 457   | 83   | 43a   | 3 542                                | 440    |
| WABAMUN A  | 33 333  | 0.80                     | 0.55                    | 12 000   | 8 338   | 3 662  | 36  | 132 967                              | 23 957 |
| WABAMUN B  | 1 091   | 0.75                     | 0.45                    | 450  | 195   | 255  | 38a   | 9 642                                | 1 919  |
| OTHER  | 1 366   |                          |                         | 956  | 223   | 733  |   | 29 149                               |        |
| TOTAL-CROSSFIELD EAST                            | 40 523  |                          |                         | 16 817   | 11 419  | 5 398  |   | 203 676                              |        |
| <b>CROW (SA) 004-12W4<br/>TOTAL-CROW</b>         | 24  |                          |                         | 16   |   | 16   |   | 557                                  |        |
| <b>CRYSTAL 046-03W5</b>                          |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A SOLN                                    | 1 615   | 0.65                     | 0.15                    | 893  | 94  | 799  | 42  | 33 798                               |        |
| VIKING A ASSOC                                   | 608   | 0.65                     | 0.15                    | 336  |   | 336  | 42  | 14 213                               | 1 605  |
| OTHER  | 365   |                          |                         | 239  |   | 239  |   | 9 726                                |        |
| TOTAL-CRYSTAL                                    | 2 588   |                          |                         | 1 468  | 94  | 1 374  |   | 57 737                               |        |
| <b>CULP 079-24W5</b>                             |   |                          |                         |  |   |  |   |                                      |        |
| DEBOLT B 078-24                                  | 557   | 0.85                     | 0.10                    | 426  |   | 426  | 40  | 17 061                               | 1 185  |
| OTHER  | 504   |                          |                         | 364  |   | 364  |   | 14 579                               |        |
| TOTAL-CULP                                       | 1 061   |                          |                         | 790  |   | 790  |   | 31 640                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20  |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                   |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |   |
| 2.07                        | 0.300    | 0.70        | 2 710               | 20   | 0.943    | 0.57                           | 386.2                      | 1962         | 1983                     | OF VIK POOL NO.6                          |
| 8.11                        | 0.300    | 0.60        | 2 620               | 25   | 0.946    | 0.56                           | 387.3                      | 1969         | 1982                     | CWNGNUL CNG PANALTA TCPL                  |
| 11.10                       | 0.295    | 0.80        | 2 420               | 18   | 0.950    | 0.57                           | 369.6                      | 1967         | 1979                     | CNG PANALTA MATERIAL BALANCE              |
| 2.37                        | 0.250    | 0.60        | 2 930               | 26   | 0.946    | 0.57                           | 529.7                      | 1953         | 1983                     | KANNQAZ PANALTA TCPL MATERIAL BALANCE     |
| 9.90                        | 0.105    | 0.55        | 2 830               | 25   | 0.947    | 0.57                           | 504.3                      | 1961         | 1985                     | CWNGNUL CNG PANALTA TCPL MATERIAL BALANCE |
|                             |          |             |                     |      |          |                                |                            |              |                          | CWNGNUL TCPL PRODUCTION DECLINE           |
| 9.01                        | 0.172    | 0.25        | 5 500               | 30   | 0.907    | 0.58                           | 745.7                      | 1973         | 1983                     | PANALTA PART OF DBLT POOL NO.1 MATERIAL   |
| 5.77                        | 0.070    | 0.65        | 21 300              | 90   | 0.827    | 0.82                           | 2 255.2                    | 1974         | 1985                     | BALANCE                                   |
| 6.04                        | 0.052    | 0.60        | 21 470              | 89   | 0.814    | 0.83                           | 2 302.7                    | 1980         | 1984                     | DOMEDOW PANALTA PROGAS                    |
| 4.07                        | 0.130    | 0.55        | 19 550              | 82   | 0.877    | 0.64                           | 2 320.9                    | 1975         | 1979                     | PRODUCTION DECLINE                        |
|                             |          |             |                     |      |          |                                |                            |              |                          | PANALTA PROGAS                            |
| 2.62                        | 0.124    | 0.70        | 16 720              | 71   | 0.829    | 0.72                           | 2 233.0                    | 1957         | 1975                     | TCPL                                      |
| 3.39                        | 0.130    | 0.70        | 26 820              | 71   | 0.874    | 0.75                           | 2 562.1                    | 1965         | 1982                     | PRODUCTION DECLINE                        |
| 4.32                        | 0.114    | 0.70        | 16 980              | 63   | 0.812    | 0.73                           | 2 108.0                    | 1966         | 1980                     | MATERIAL BALANCE                          |
| 1.85                        | 0.114    | 0.70        | 16 980              | 64   | 0.812    | 0.73                           | 2 118.1                    | 1966         | 1980                     | MATERIAL BALANCE                          |
| 11.75                       | 0.115    | 0.90        | 22 900              | 81   | 0.854    | 0.74                           | 2 560.8                    | 1956         | 1983                     | TCPL                                      |
| 22.06                       | 0.084    | 0.85        | 21 110              | 74   | 0.845    | 0.73                           | 2 264.7                    | 1957         | 1983                     | A&S TCPL MATERIAL BALANCE PREVIOUS GAS    |
| 8.20                        | 0.111    | 0.75        | 22 720              | 83   | 0.872    | 0.73                           | 2 503.6                    | 1970         | 1982                     | CYCLING                                   |
| 12.65                       | 0.115    | 0.90        | 22 900              | 79   | 0.852    | 0.70                           | 2 560.3                    | 1961         | 1975                     | TCPL WCOAST MATERIAL BALANCE              |
| 9.39                        | 0.098    | 0.85        | 20 960              | 69   | 0.822    | 0.74                           | 2 322.6                    | 1972         | 1976                     | A&S MATERIAL BALANCE                      |
| 9.30                        | 0.057    | 0.85        | 25 030              | 74   | 0.750    | 0.87                           | 2 590.8                    | 1954         | 1985                     | A&S TCPL                                  |
|                             |          |             |                     |      |          |                                |                            |              |                          | TCPL WCOAST PRODUCTION DECLINE            |
| 9.77                        | 0.085    | 0.80        | 20 860              | 77   | 0.823    | 0.74                           | 2 268.9                    | 1960         | 1979                     | TCPL CONCURRENT PRODUCTION                |
| 7.21                        | 0.106    | 0.85        | 20 910              | 77   | 0.806    | 0.79                           | 2 307.9                    | 1961         | 1979                     | TCPL CONCURRENT PRODUCTION                |
| 14.89                       | 0.090    | 0.80        | 19 140              | 77   | 0.816    | 0.74                           | 2 313.1                    | 1968         | 1984                     | TCPL CONCURRENT PRODUCTION                |
| 15.98                       | 0.054    | 0.85        | 24 990              | 83   | 0.743    | 0.90                           | 2 665.4                    | 1960         | 1981                     | TCPL PRODUCTION DECLINE                   |
| 7.84                        | 0.063    | 0.85        | 24 890              | 74   | 0.664    | 0.95                           | 2 647.8                    | 1959         | 1981                     | PANALTA PROGAS TCPL MATERIAL BALANCE      |
|                             |          |             |                     |      |          |                                |                            |              |                          | TCPL MATERIAL BALANCE                     |
| 4.30                        | 0.111    | 0.70        | 10 070              | 52   | 0.777    | 0.76                           | 1 709.5                    | 1978         | 1985                     | PROGAS                                    |
|                             |          |             |                     |      |          |                                |                            | 1978         | 1985                     | PROGAS                                    |
| 5.01                        | 0.140    | 0.50        | 12 590              | 49   | 0.832    | 0.64                           | 1 140.6                    | 1973         | 1978                     | A&S PANALTA                               |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| CUTBANK 064-09W6<br>TOTAL-CUTBANK            | 960   |                          |                         | 671  |   | 671  |   | 25 260                               |       |
| CUTPICK (SA) 060-07W6<br>TOTAL-CUTPICK       | 61  |                          |                         | 44   |   | 44   |   | 1 647                                |       |
| CYGNET 038-01W5<br>TOTAL-CYGNET              | 772   |                          |                         | 506  | 6   | 500  |   | 18 771                               |       |
| CYN-PEM 051-11W5<br>ELLERSLIE A              | 549   | 0.75                     | 0.10                    | 370  | 34  | 336  | 37  | 12 576                               | 1 429 |
| ROCK CREEK A                                 | 949   | 0.75                     | 0.15                    | 605  | 195   | 410  | 37  | 15 346                               | 2 145 |
| OTHER  | 2 676   |                          |                         | 1 489  | 76  | 1 413  |   | 54 235                               |       |
| TOTAL-CYN-PEM                                | 4 174   |                          |                         | 2 464  | 305   | 2 159  |   | 82 157                               |       |
| CYPRESS (SA) 007-01W4<br>TOTAL-CYPRESS       | 13  |                          |                         | 7  |   | 7  |   | 254                                  |       |
| CZAR 041-05W4<br>TOTAL-CZAR                  | 547   |                          |                         | 349  |   | 349  |   | 13 000                               |       |
| DALEHURST 053-23W5<br>TOTAL-DALEHURST        | 105   |                          |                         | 75   |   | 75   |   | 2 948                                |       |
| DALEMEAD (SA) 022-26W4<br>TOTAL-DALEMEAD     | 63  |                          |                         | 40   |   | 40   |   | 1 572                                |       |
| DAPP 062-26W4<br>TOTAL-DAPP                  | 94  |                          |                         | 64   | 35  | 29   |   | 1 085                                |       |
| DARWELL (SA) 054-05W5<br>TOTAL-DARWELL       | 29  |                          |                         | 20   |   | 20   |   | 749                                  |       |
| DARWIN 098-18W5<br>TOTAL-DARWIN              | 496   |                          |                         | 244  |   | 244  |   | 9 589                                |       |
| DAVEY 034-27W4<br>BELLY RIVER A              | 520   | 0.75                     | 0.05                    | 371  | 273   | 98   | 39a   | 3 859                                | 3 846 |
| OTHER  | 1 206   |                          |                         | 691  | 51  | 640  |   | 25 467                               |       |
| TOTAL-DAVEY                                  | 1 726   |                          |                         | 1 062  | 324   | 738  |   | 29 326                               |       |
| DAVID 041-03W4<br>TOTAL-DAVID                | 198   |                          |                         | 127  | 2   | 125  |   | 4 684                                |       |
| DAWSON 080-16W5<br>TOTAL-DAWSON              | 362   |                          |                         | 229  |   | 229  |   | 8 570                                |       |
| DEADMAN (SA) 082-19W4<br>TOTAL-DEADMAN       | 32  |                          |                         | 17   |   | 17   |   | 636                                  |       |
| DEADWOOD 091-23W5<br>TOTAL-DEADWOOD          | 120   |                          |                         | 76   | 31  | 45   |   | 1 769                                |       |
| DEANNE 038-11W5<br>TOTAL-DEANNE              | 140   |                          |                         | 89   | 5   | 84   |   | 3 270                                |       |
| DECRENE 071-02W5<br>CLEARWATER A             | 913   | 0.75                     | 0.05                    | 651  | 67  | 584  | 37  | 21 859                               | 3 193 |
| OTHER  | 1 208   |                          |                         | 821  | 76  | 745  |   | 29 010                               |       |
| TOTAL-DECRENE                                | 2 121   |                          |                         | 1 472  | 143   | 1 329  |   | 50 869                               |       |
| DEEP 065-03W5<br>TOTAL-DEEP                  | 99  |                          |                         | 66   |   | 66   |   | 2 718                                |       |
| DEER 024-07W4<br>TOTAL-DEER                  | 387   |                          |                         | 253  |   | 253  |   | 9 367                                |       |
| DELIA 032-18W4<br>BELLY RIVER A              | 1 046   | 0.70                     | 0.05                    | 695  | 77  | 618  | 37  | 23 132                               | 4 638 |
| OTHER  | 1 536   |                          |                         | 957  | 72  | 885  |   | 34 036                               |       |
| TOTAL-DELIA                                  | 2 582   |                          |                         | 1 652  | 149   | 1 503  |   | 57 168                               |       |



| 10                          | 11             | 12           | 13                  | 14       | 15             | 16                             | 17                         | 18           | 19                       | 20  |
|-----------------------------|----------------|--------------|---------------------|----------|----------------|--------------------------------|----------------------------|--------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY       | GAS<br>SATN  | INITIAL<br>PRESSURE | TEMP     | COMPRESS       | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                             |
| m                           | frac           | frac         | kPa                 | °C       | frac           | frac                           | m                          |              |                          |   |
| 2.17<br>3.66                | 0.120<br>0.096 | 0.80<br>0.75 | 17 470<br>17 430    | 67<br>79 | 0.792<br>0.839 | 0.71<br>0.73                   | 2 244.9<br>2 255.1         | 1973<br>1973 | 1982<br>1985             | KANNGAZ TCPL<br>KANNGAZ TCPL                        |
| 3.69                        | 0.170          | 0.65         | 4 090               | 43       | 0.932          | 0.62                           | 1 121.1                    | 1974         | 1985                     | NUL CWNGNUL KANNGAZ PROGAS TCPL MATERIAL<br>BALANCE |
| 3.75                        | 0.278          | 0.60         | 4 270               | 19       | 0.910          | 0.57                           | 543.3                      | 1976         | 1985                     | PANALTA   |
| 4.68                        | 0.267          | 0.55         | 3 200               | 22       | 0.940          | 0.57                           | 638.4                      | 1977         | 1985                     | PANALTA SLPETRO                                     |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| DEMAC 048-19W4<br>TOTAL-DEMAC                | 164   |                          |                         | 104  | 14  | 90   |   | 3 336                                |       |
| DERWENT 054-07W4<br>TOTAL-DERWENT            | 276   |                          |                         | 181  |   | 181  |   | 6 772                                |       |
| DESMARAIS 080-25W4<br>TOTAL-DESMARAIS        | 73  |                          |                         | 45   |   | 45   |   | 1 684                                |       |
| DETLOFF 081-10W6<br>TOTAL-DETLOFF            | 66  |                          |                         | 47   |   | 47   |   | 1 794                                |       |
| DEVENISH 075-08W4<br>TOTAL-DEVENISH          | 71  |                          |                         | 37   |   | 37   |   | 1 385                                |       |
| DEVIL 071-15W5<br>TOTAL-DEVIL                | 67  |                          |                         | 45   |   | 45   |   | 1 684                                |       |
| DEWBERRY 053-04W4<br>TOTAL-DEWBERRY          | 294   |                          |                         | 209  |   | 209  |   | 7 888                                |       |
| DIAMOND (SA) 010-21W4<br>TOTAL-DIAMOND       | 78  |                          |                         | 56   |   | 56   |   | 2 180                                |       |
| DICKENS (SA) 120-05W6<br>TOTAL-DICKENS       | 17  |                          |                         | 12   |   | 12   |   | 517                                  |       |
| DIMSDALE 071-07W6<br>TOTAL-DIMSDALE          | 879   |                          |                         | 544  |   | 544  |   | 20 976                               |       |
| DINA 045-01W4<br>TOTAL-DINA                  | 508   |                          |                         | 338  |   | 338  |   | 12 610                               |       |
| DINANT 047-19W4<br>TOTAL-DINANT              | 493   |                          |                         | 318  | 24  | 294  |   | 11 010                               |       |
| DIVIDE (SA) 082-19W4<br>TOTAL-DIVIDE         | 6   |                          |                         | 3  |   | 3  |   | 112                                  |       |
| DIXONVILLE 086-01W6<br>BLUESKY A             | 594   | 0.70                     | 0.05                    | 395  | 283   | 112  | 37  | 4 108                                | 1 789 |
| BLUESKY B                                    | 197   | 0.70                     | 0.05                    | 131  |   |  | 37  |                                      | 3 050 |
| GETHING A                                    | 815   | 0.80                     | 0.05                    | 619  |   |  | 37  |                                      | 2 521 |
| BLUESKY B & GETHING A TOTAL                  | 1 012   | 0.80                     | 0.05                    | 750  | 414   | 336  | 37  | 12 324                               |       |
| OTHER  | 1 396   |                          |                         | 939  | 138   | 801  |   | 30 316                               |       |
| TOTAL-DIXONVILLE                             | 3 002   |                          |                         | 2 084  | 835   | 1 249  |   | 46 748                               |       |
| DIZZY (SA) 121-20W5<br>TOTAL-DIZZY           | 134   |                          |                         | 91   |   | 91   |   | 3 372                                |       |
| DOBSON 029-09W4<br>TOTAL-DOBSON              | 417   |                          |                         | 274  | 80  | 194  |   | 7 457                                |       |
| DOE 081-12W6<br>KISKATINAW A                 | 1 017   | 0.85                     | 0.05                    | 821  | 163   | 658  | 38  | 25 122                               | 1 456 |
| OTHER  | 391   |                          |                         | 286  | 14  | 272  |   | 10 181                               |       |
| TOTAL-DOE                                    | 1 408   |                          |                         | 1 107  | 177   | 930  |   | 35 303                               |       |
| DOIG 090-11W6<br>TOTAL-DOIG                  | 177   |                          |                         | 116  |   | 116  |   | 4 277                                |       |
| DOLCY 041-04W4<br>TOTAL-DOLCY                | 180   |                          |                         | 118  |   | 118  |   | 4 417                                |       |
| DONALDA 041-18W4<br>VIKING A                 |   | 0.75                     | 0.05                    |  |   |  | 36  |                                      | 2 462 |
| VIKING C                                     |   | 0.75                     | 0.05                    |  |   |  | 36  |                                      | 5 654 |
| VIKING D                                     |   | 0.75                     | 0.05                    |  |   |  | 36  |                                      | 525   |
| VIKING A, C & D TOTAL                        | 600   | 0.75                     | 0.05                    | 427  | 389   | 38   | 36  | 1 380                                |       |
| OTHER  | 1 628   |                          |                         | 1 087  | 230   | 857  |   | 31 390                               |       |
| TOTAL-DONALDA                                | 2 228   |                          |                         | 1 514  | 619   | 895  |   | 32 770                               |       |



| 10                          | 11                      | 12                   | 13                      | 14             | 15                      | 16                             | 17                            | 18                   | 19                       | 20   |
|-----------------------------|-------------------------|----------------------|-------------------------|----------------|-------------------------|--------------------------------|-------------------------------|----------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE     | TEMP           | COMPRESS                | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH    | DISC<br>YEAR         | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS  |
| m                           | frac                    | frac                 | kPa                     | °C             | frac                    | frac                           | m                             |                      |                          |  |
| 1.30<br>0.85<br>3.80        | 0.220<br>0.220<br>0.212 | 0.55<br>0.55<br>0.65 | 6 410<br>6 070<br>6 020 | 35<br>33<br>34 | 0.897<br>0.899<br>0.904 | 0.59<br>0.57<br>0.56           | 766.6<br>728.5<br>742.3       | 1958<br>1952<br>1952 | 1985<br>1979<br>1979     | NUL PANALTA TCPL PRODUCTION DECLINE<br>CWNGNUL PANALTA                     |
| 5.26                        | 0.110                   | 0.60                 | 21 320                  | 66             | 0.891                   | 0.60                           | 2 409.4                       | 1965                 | 1980                     | PRDGAS   |
| 1.26<br>1.99<br>0.91        | 0.140<br>0.200<br>0.157 | 0.55<br>0.55<br>0.55 | 6 340<br>6 380<br>6 340 | 33<br>33<br>38 | 0.903<br>0.901<br>0.903 | 0.60<br>0.58<br>0.59           | 1 001.9<br>1 009.9<br>1 037.5 | 1960<br>1957<br>1960 | 1981<br>1985<br>1981     | PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>CNG TCPL |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE       | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>DORENLEE (SA) 043-20W4</b><br>TOTAL-DORENLEE    | 105   |                          |                         | 61   |   | 61   |   | 2 422                                |        |
| <b>DORIS 063-06W5</b><br>UPPER MANNVILLE A         | 483   | 0.85                     | 0.05                    | 389  | 8   | 381  | 37.2  | 14 261                               | 771    |
| OTHER  | 431   |                          |                         | 319  | 9   | 310  |   | 11 572                               |        |
| TOTAL-DORIS  | 914   |                          |                         | 708  | 17  | 691  |   | 25 833                               |        |
| <b>DOSBURN (SA) 001-03W4</b><br>TOTAL-DOSBURN      | 38  |                          |                         | 27   |   | 27   |   | 1 031                                |        |
| <b>DOUCETTE 078-02W5</b><br>WABISKAW A 077-02      | 551   | 0.80                     | 0.05                    | 419  |   | 419  | 40  | 16 781                               | 2 670  |
| OTHER  | 100   |                          |                         | 64   |   | 64   |   | 2 563                                |        |
| TOTAL-DOUCETTE                                     | 651   |                          |                         | 483  |   | 483  |   | 19 344                               |        |
| <b>DOWLING LAKE 032-15W4</b><br>TOTAL-DOWLING LAKE | 264   |                          |                         | 191  | 67  | 124  |   | 4 804                                |        |
| <b>DREAU (SA) 078-21W5</b><br>TOTAL-DREAU          | 146   |                          |                         | 103  |   | 103  |   | 4 087                                |        |
| <b>DRIFTPILE (SA) 073-12W5</b><br>TOTAL-DRIFTPILE  | 54  |                          |                         | 36   |   | 36   |   | 1 348                                |        |
| <b>DRIFTWOOD 077-22W4</b><br>TOTAL-DRIFTWOOD       | 342   |                          |                         | 204  |   | 204  |   | 7 559                                |        |
| <b>DROWNED 076-23W4</b><br>TOTAL-DROWNED           | 485   |                          |                         | 309  | 150   | 159  |   | 6 202                                |        |
| <b>DRUMHELLER 029-19W4</b><br>MANNVILLE F SOLN     | 20  | 0.65                     | 0.10                    | 12 <sup>b</sup>  |   |  | 40  |                                      |        |
| MANNVILLE F ASSOC                                  | 972   | 0.90                     | 0.10                    | 787 <sup>b</sup>   | 276 <sup>b</sup>  | 523  | 40  | 21 145                               | 1 898  |
| MANNVILLE G  | 399   | 0.85                     | 0.10                    | 305  | 96  | 209  | 40  | 8 450                                | 842    |
| MANNVILLE M  | 396   | 0.80                     | 0.05                    | 301  | 279   | 22   | 40  | 889                                  | 440    |
| MANNVILLE W  | 485   | 0.80                     | 0.10                    | 349  | 229   | 120  | 40  | 4 852                                | 440    |
| MANNVILLE CC                                       | 668   | 0.80                     | 0.10                    | 481  | 62  | 419  | 44  | 18 507                               | 1 914  |
| LOWER MANNVILLE E ASSOC                            | 521   | 0.70                     | 0.10                    | 328  |   | 328  | 40  | 13 261                               | 440    |
| LOWER MANNVILLE F                                  | 459   | 0.85                     | 0.10                    | 351  | 15  | 336  | 41  | 13 773                               | 200    |
| OTHER  | 5 202   |                          |                         | 3 429  | 1 086   | 2 343  |   | 94 367                               |        |
| TOTAL-DRUMHELLER                                   | 9 122   |                          |                         | 6 343  | 2 043   | 4 300  |   | 175 244                              |        |
| <b>DUAGH (SA) 055-23W4</b><br>TOTAL-DUAGH          | 15  |                          |                         | 10   |   | 10   |   | 374                                  |        |
| <b>DUHAMEL 045-21W4</b><br>TOTAL-DUHAMEL           | 1 414   |                          |                         | 746  | 113   | 633  |   | 24 826                               |        |
| <b>DUNCAN 074-15W4</b><br>MCMURRAY F               | 963   | 0.65                     | 0.05                    | 595  | 198   | 397  | 37  | 14 860                               | 22 792 |
| GROSMONT B   | 1 915   | 0.55                     | 0.05                    | 1 000  | 931   | 69   | 37  | 2 557                                | 26 561 |
| OTHER  | 516   |                          |                         | 275  | 1   | 274  |   | 10 258                               |        |
| TOTAL-DUNCAN                                       | 3 394   |                          |                         | 1 870  | 1 130   | 740  |   | 27 675                               |        |
| <b>DUNKIRK 090-18W4</b><br>TOTAL-DUNKIRK           | 8   |                          |                         | 4  |   | 4  |   | 150                                  |        |
| <b>DUNSTABLE (SA) 057-01W5</b><br>TOTAL-DUNSTABLE  | 71  |                          |                         | 48   |   | 48   |   | 2 030                                |        |
| <b>DUNVEGAN 081-04W6</b><br>GETHING B              | 1 275   | 0.80                     | 0.05                    | 969  | 339   | 630  | 38  | 23 820                               | 2 484  |
| GETHING C  | 386   | 0.85                     | 0.05                    | 313  | 10  | 303  | 38  | 11 456                               | 200    |
| GETHING D  | 821   | 0.85                     | 0.05                    | 663  | 137   | 526  | 38  | 19 888                               | 440    |
| DEBOLT A   | 4 934   | 0.80                     | 0.05                    | 3 750  |   |  | 40  |                                      | 11 565 |
| DEBOLT B   | 15 131  | 0.80                     | 0.05                    | 11 500   |   |  | 40  |                                      | 12 988 |
| DEBOLT C   | 12 776  | 0.80                     | 0.05                    | 9 710  |   |  | 40  |                                      | 9 182  |
| DEBOLT D   | 303   | 0.70                     | 0.05                    | 201  |   |  | 40  |                                      | 200    |
| DEBOLT D   | 77  | 0.70                     | 0.05                    | 51   |   |  | 40  |                                      | 200    |
| DEBOLT D   | 261   | 0.70                     | 0.05                    | 174  |   |  | 40  |                                      | 200    |
| DEBOLT A,B,C & D TOTAL                             | 33 482  | 0.80                     | 0.05                    | 25 386   | 12 099  | 13 287   | 40  | 532 144                              |        |
| OTHER  | 4 558   |                          |                         | 3 113  | 422   | 2 691  |   | 105 220                              |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20                                |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|-----------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS           |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |                                   |
| 3.87                        | 0.240    | 0.70        | 9 000               | 39   | 0.862    | 0.64                           | 982.4                      | 1972         | 1975                     | PANALTA TCPL                      |
| 3.14                        | 0.250    | 0.80        | 3 280               | 28   | 0.944    | 0.60                           | 573.3                      | 1973         | 1975                     | TCPL BER                          |
| 3.02                        | 0.204    | 0.75        | 9 990               | 40   | 0.819    | 0.66                           | 1 284.3                    | 1950         | 1984                     | PROGAS TCPL CONCURRENT PRODUCTION |
| 2.80                        | 0.226    | 0.70        | 9 550               | 37   | 0.820    | 0.66                           | 1 208.8                    | 1950         | 1984                     | PROGAS TCPL CONCURRENT PRODUCTION |
| 2.47                        | 0.170    | 0.65        | 9 380               | 38   | 0.805    | 0.67                           | 1 340.2                    | 1964         | 1983                     | TCPL                              |
| 4.70                        | 0.227    | 0.70        | 9 770               | 39   | 0.810    | 0.67                           | 1 246.0                    | 1969         | 1981                     | TCPL PRODUCTION DECLINE           |
| 2.64                        | 0.198    | 0.65        | 9 970               | 52   | 0.849    | 0.65                           | 1 305.9                    | 1973         | 1982                     | TCPL MATERIAL BALANCE             |
| 6.10                        | 0.230    | 0.75        | 9 850               | 37   | 0.803    | 0.68                           | 1 326.0                    | 1976         | 1983                     | PANALTA TCPL                      |
| 9.25                        | 0.270    | 0.80        | 10 140              | 40   | 0.803    | 0.70                           | 1 248.2                    | 1974         | 1983                     | TCPL                              |
|                             |          |             |                     |      |          |                                |                            | 1977         | 1978                     | PANALTA                           |
| 1.88                        | 0.280    | 0.40        | 2 030               | 27   | 0.959    | 0.57                           | 534.0                      | 1971         | 1985                     | KANNGAZ                           |
| 9.89                        | 0.120    | 0.30        | 2 050               | 27   | 0.960    | 0.57                           | 576.9                      | 1972         | 1985                     |                                   |
| 2.94                        | 0.241    | 0.75        | 9 140               | 41   | 0.857    | 0.60                           | 919.2                      | 1971         | 1981                     | A&S                               |
| 12.95                       | 0.200    | 0.80        | 8 890               | 40   | 0.865    | 0.59                           | 905.0                      | 1976         | 1976                     | A&S                               |
| 8.95                        | 0.280    | 0.75        | 8 940               | 30   | 0.846    | 0.60                           | 905.9                      | 1972         | 1983                     | A&S                               |
| 3.35                        | 0.141    | 0.60        | 13 840              | 49   | 0.812    | 0.65                           | 1 440.0                    | 1963         | 1985                     |                                   |
| 7.10                        | 0.174    | 0.60        | 14 380              | 49   | 0.808    | 0.65                           | 1 462.2                    | 1963         | 1984                     |                                   |
| 7.21                        | 0.191    | 0.60        | 15 350              | 49   | 0.805    | 0.65                           | 1 497.7                    | 1952         | 1984                     |                                   |
| 8.99                        | 0.130    | 0.75        | 15 910              | 49   | 0.808    | 0.63                           | 1 538.2                    | 1979         | 1981                     |                                   |
| 5.73                        | 0.110    | 0.35        | 15 910              | 49   | 0.808    | 0.63                           | 1 546.6                    | 1972         | 1981                     |                                   |
| 8.32                        | 0.140    | 0.65        | 15 910              | 49   | 0.815    | 0.62                           | 1 532.2                    | 1975         | 1981                     |                                   |
|                             |          |             |                     |      |          |                                |                            | 1963         | 1985                     | A&S                               |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>DUNVEGAN 081-04W6<br/>(CONTINUED)</b>     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-DUNVEGAN                               | 40 522  |                          |                         | 30 444   | 13 007  | 17 437   |   | 692 528                              |        |
| <b>DUVERNAY 055-12W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 1 740   | 0.75                     | 0.05                    | 1 240  |   |  | 37 <sup>a</sup>                             |                                      | 39 100 |
| VIKING M                                     | 60  | 0.70                     | 0.05                    | 40   |   |  | 37  |                                      | 1 780  |
| VIKING A & M TOTAL                           | 1 800   | 0.75                     | 0.05                    | 1 280  | 152   | 1 128  | 37  | 42 221                               |        |
| COLONY B                                     | 1 746   | 0.60                     | 0.05                    | 996  | 92  | 904  | 37  | 33 837                               | 4 920  |
| OTHER  | 5 297   |                          |                         | 3 582  | 496   | 3 086  |   | 115 422                              |        |
| TOTAL-DUVERNAY                               | 8 843   |                          |                         | 5 858  | 740   | 5 118  |   | 191 480                              |        |
| <b>DYBERG 044-23W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-DYBERG                                 | 595   |                          |                         | 403  |   | 403  |   | 16 003                               |        |
| <b>EAGLE BUTTE (SA) 007-04W4</b>             |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-EAGLE BUTTE                            | 609   |                          |                         | 434  |   | 434  |   | 16 336                               |        |
| <b>EAGLESHAM 077-25W5</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| DEBOLT A                                     | 513   | 0.90                     | 0.05                    | 440  |   | 440  | 40  | 17 622                               | 742    |
| DEBOLT E                                     | 97  | 0.75                     | 0.10                    | 65   |   |  | 40  |                                      | 200    |
| DEBOLT G                                     | 312   | 0.90                     | 0.10                    | 253  |   |  | 40  |                                      | 402    |
| DEBOLT E & G TOTAL                           | 409   | 0.85                     | 0.10                    | 318  | 70  | 248  | 40  | 9 932                                |        |
| OTHER  | 1 450   |                          |                         | 1 052  | 97  | 955  |   | 38 073                               |        |
| TOTAL-EAGLESHAM                              | 2 372   |                          |                         | 1 810  | 167   | 1 643  |   | 65 627                               |        |
| <b>EAGLESHAM NORTH 078-25W5</b>              |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-EAGLESHAM NORTH                        | 145   |                          |                         | 104  | 65  | 39   |   | 1 562                                |        |
| <b>EARRING 083-08W6</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-EARRING                                | 1 323   |                          |                         | 921  | 6   | 915  |   | 34 910                               |        |
| <b>ECONOMY (SA) 068-01W6</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ECONOMY                                | 42  |                          |                         | 29   |   | 29   |   | 1 085                                |        |
| <b>EDBERG 044-19W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-EDBERG                                 | 162   |                          |                         | 102  | 5   | 97   |   | 3 702                                |        |
| <b>EDGERTON 045-04W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-EDGERTON                               | 1 224   |                          |                         | 821  | 251   | 570  |   | 21 160                               |        |
| <b>EDMONTON (SA) 053-23W4</b>                |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-EDMONTON                               | 50  |                          |                         | 31   |   | 31   |   | 1 311                                |        |
| <b>EDRA (SA) 099-24W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-EDRA                                   | 105   |                          |                         | 70   |   | 70   |   | 2 594                                |        |
| <b>EDSON 052-18W5</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM FF                                   | 2 763   | 0.20                     | 0.10                    | 498  |   |  | 40  |                                      | 2 854  |
| CARDIUM BBB                                  | 261   | 0.20                     | 0.10                    | 47   |   |  | 40  |                                      | 300    |
| CARDIUM FF & BBB TOTAL                       | 3 024   | 0.20                     | 0.10                    | 545  | 8   | 537  | 40  | 21 711                               |        |
| VIKING A                                     | 758   | 0.85                     | 0.10                    | 580  | 549   | 31   | 39  | 1 218                                | 440    |
| VIKING B                                     | 3 704   | 0.75                     | 0.10                    | 2 500  | 563   | 1 937  | 39  | 76 124                               | 5 314  |
| GETHING A                                    | 5 804   | 0.92                     | 0.05                    | 5 070  | 3 461   | 1 609  | 39  | 63 234                               | 4 784  |
| ROCK CREEK A                                 | 546   | 0.90                     | 0.10                    | 443  |   | 443  | 39  | 17 410                               | 200    |
| ELKTON A                                     |   | 0.85                     | 0.10                    |  |   |  | 39 <sup>a</sup>                             |                                      | 45 364 |
| SHUNDA A                                     |   | 0.85                     | 0.10                    |  |   |  | 39 <sup>a</sup>                             |                                      | 440    |
| SHUNDA B                                     |   | 0.85                     | 0.10                    |  |   |  | 39 <sup>a</sup>                             |                                      | 440    |
| ELK A, SHUN A & B TOTAL                      | 56 470  | 0.85                     | 0.10                    | 43 200   | 35 006  | 8 194  | 39 <sup>a</sup>                             | 322 024                              |        |
| OTHER  | 6 384   |                          |                         | 4 092  | 569   | 3 523  |   | 139 533                              |        |
| TOTAL-EDSON                                  | 76 690  |                          |                         | 56 430   | 40 156  | 16 274   |   | 641 254                              |        |
| <b>EDWAND 060-16W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| GRAND RAPIDS A                               | 153   | 0.70                     | 0.05                    | 103  |   |  | 37  |                                      | 1 332  |
| GRAND RAPIDS C                               | 254   | 0.70                     | 0.05                    | 169  |   |  | 37  |                                      | 1 616  |
| GRAND RAPIDS D                               | 14  | 0.75                     | 0.05                    | 10   |   |  | 37  |                                      | 167    |
| GRAND RAPIDS F                               | 28  | 0.75                     | 0.05                    | 20   |   |  | 37  |                                      | 444    |
| GRAND RAPIDS A,C,D&F TOTAL                   | 449   | 0.70                     | 0.05                    | 302  | 140   | 162  | 37  | 6 064                                |        |
| NISKU A                                      | 583   | 0.60                     | 0.05                    | 333  | 101   | 232  | 37  | 8 684                                | 1 072  |
| NISKU D                                      | 1 240   | 0.60                     | 0.05                    | 707  | 273   | 434  | 37  | 16 245                               | 1 783  |
| OTHER  | 3 953   |                          |                         | 2 625  | 594   | 2 031  |   | 75 900                               |        |
| TOTAL-EDWAND                                 | 6 225   |                          |                         | 3 967  | 1 108   | 2 859  |   | 106 893                              |        |



| 10  | 11  | 12   | 13   | 14  | 15  | 16   | 17  | 18   | 19   | 20  |
|---|---|--|--|---|---|--|---|--|--|---|
| AVERAGE<br>PAY<br>THICKNESS   | POROSITY  | GAS<br>SATN  | INITIAL<br>PRESSURE  | TEMP  | COMPRESS  | RAW GAS<br>RELATIVE<br>DENSITY                                       | MEAN<br>FORMATION<br>DEPTH  | DISC<br>YEAR   | DATE<br>LAST<br>REVIEWED   | DISPOSITION AND REMARKS   |
| m   | frac  | frac   | kPa  | °C  | frac  | frac   | m   |  |  |   |
| 0.88<br>0.95<br>3.92  | 0.242<br>0.205<br>0.270   | 0.50<br>0.50<br>0.75   | 3 930<br>3 290<br>4 300  | 18<br>17<br>25  | 0.919<br>0.928<br>0.919   | 0.58<br>0.58<br>0.57   | 454.1<br>435.3<br>532.6   | 1949<br>1972<br>1949<br>1972   | 1984<br>1983<br>1984<br>1984   | PART OF VIK POOL NO.6<br>PART OF VIK POOL NO.6<br>CWNGNUL PANALTA TCPL PART OF VIK POOL NO.6<br>PANALTA TCPL  |
| 3.35<br>2.74<br>3.39  | 0.180<br>0.140<br>0.182   | 0.75<br>0.75<br>0.80   | 14 410<br>15 410<br>14 530   | 57<br>58<br>53  | 0.845<br>0.786<br>0.807   | 0.66<br>0.65<br>0.66   | 1 368.6<br>1 412.0<br>1 435.7   | 1959<br>1976<br>1952<br>1952   | 1973<br>1982<br>1980<br>1983   | PANALTA TCPL<br><br>PANALTA   |
| 5.28<br>5.90<br>3.70<br>2.51<br>7.81<br>11.00<br>6.25<br>4.88<br>4.88 | 0.123<br>0.100<br>0.130<br>0.127<br>0.098<br>0.110<br>0.104<br>0.034<br>0.040 | 0.75<br>0.70<br>0.60<br>0.80<br>0.75<br>0.75<br>0.90<br>0.75<br>0.80 | 19 840<br>19 990<br>39 210<br>22 150<br>23 150<br>37 500<br>26 600<br>26 790<br>26 810 | 74<br>61<br>83<br>87<br>83<br>76<br>102<br>109<br>103 | 0.818<br>0.807<br>1.042<br>0.891<br>0.877<br>1.015<br>0.948<br>0.960<br>0.953 | 0.71<br>0.68<br>0.65<br>0.67<br>0.68<br>0.66<br>0.65<br>0.65<br>0.65 | 2 157.1<br>2 216.6<br>2 802.9<br>2 505.7<br>2 545.1<br>2 904.1<br>2 840.1<br>2 982.0<br>3 027.7 | 1976<br>1981<br>1976<br>1973<br>1963<br>1977<br>1962<br>1964<br>1964<br>1962 | 1985<br>1985<br>1985<br>1985<br>1977<br>1983<br>1984<br>1981<br>1981<br>1981 | PART OF CARD POOL NO.1<br>PART OF CARD POOL NO.1<br>PART OF CARD POOL NO.1<br>MATERIAL BALANCE<br>PANALTA TCPL MATERIAL BALANCE<br>TCPL<br>TCPL<br>PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>TCPL |
| 1.51<br>2.28<br>1.11<br>0.83<br>3.43<br>16.70                         | 0.325<br>0.300<br>0.300<br>0.300<br>0.160<br>0.153                            | 0.60<br>0.60<br>0.65<br>0.65<br>0.75<br>0.80                         | 3 740<br>3 690<br>3 790<br>3 790<br>3 440<br>3 430                                     | 22<br>22<br>30<br>30<br>23<br>23                      | 0.924<br>0.927<br>0.931<br>0.923<br>0.934<br>0.936                            | 0.58<br>0.57<br>0.59<br>0.60<br>0.56<br>0.57                         | 531.2<br>528.2<br>536.8<br>539.2<br>647.6<br>667.2  | 1951<br>1951<br>1951<br>1952<br>1951<br>1972<br>1972                         | 1982<br>1982<br>1976<br>1976<br>1977<br>1983<br>1985                         | PROGAS TCPL<br>TCPL PRODUCTION DECLINE<br>TCPL MATERIAL BALANCE   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| ELIZA 055-08W4<br>TOTAL-ELIZA                | 471   |                          |                         | 318  |   | 318  |   | 11 929                               |        |
| ELK POINT 056-06W4<br>TOTAL-ELK POINT        | 411   |                          |                         | 286  | 134   | 152  |   | 5 633                                |        |
| ELKWATER (SA) 008-03W4<br>TOTAL-ELKWATER     | 17  |                          |                         | 10   |   | 10   |   | 389                                  |        |
| ELLERSLIE 051-24W4<br>TOTAL-ELLERSLIE        | 59  |                          |                         | 37   | 37  |  |   |                                      |        |
| ELLSCOTT 064-21W4<br>TOTAL-ELLSCOTT          | 258   |                          |                         | 176  | 10  | 166  |   | 6 153                                |        |
| ELMWORTH 070-11W6                            |   |                          |                         |  |   |  |   |                                      |        |
| CADOTTE A                                    | 3 191   | 0.60                     | 0.10                    | 1 610  | 128   | 1 482  | 38  | 55 590                               | 5 293  |
| CADOTTE C                                    | 913   | 0.60                     | 0.10                    | 474  | 2   | 472  | 38  | 17 705                               | 2 393  |
| FALHER A-12                                  | 600   | 0.75                     | 0.15                    | 383  | 272   | 111  | 38  | 4 164                                | 1 879  |
| FALHER A-2                                   | 1 303   | 0.85                     | 0.15                    | 942  |   |  | 38  |                                      | 18 421 |
| FALHER A-4                                   | 247   | 0.75                     | 0.15                    | 157  |   |  | 38  |                                      | 2 479  |
| FALHER A-10                                  | 6 353   | 0.85                     | 0.15                    | 4 590  |   |  | 38  |                                      | 18 847 |
| FALHER B-1                                   | 3 142   | 0.85                     | 0.15                    | 2 270  |   |  | 38  |                                      | 10 917 |
| FALHER C-2                                   | 34  | 0.75                     | 0.15                    | 22   |   |  | 38  |                                      | 150    |
| FALHER C-3                                   | 26  | 0.75                     | 0.20                    | 16   |   |  | 38  |                                      | 150    |
| FALHER A2, A, 10, B1C2&3 TOTAL               | 11 105  | 0.85                     | 0.15                    | 7 997  | 2 719   | 5 278  | 38  | 197 978                              |        |
| FALHER A-1                                   | 7 972   | 0.85                     | 0.15                    | 5 760  |   |  | 38  |                                      | 32 935 |
| FALHER A-5                                   | 379   | 0.85                     | 0.15                    | 274  |   |  | 38  |                                      | 2 297  |
| FALHER A-7                                   | 412   | 0.85                     | 0.15                    | 298  |   |  | 38  |                                      | 3 567  |
| FALHER A-8                                   | 424   | 0.80                     | 0.20                    | 271  |   |  | 38  |                                      | 300    |
| FALHER A-9                                   | 50  | 0.75                     | 0.10                    | 34   |   |  | 38  |                                      | 300    |
| FALHER A-11                                  | 12  | 0.75                     | 0.15                    | 8  |   |  | 37  |                                      | 887    |
| FALHER B-3                                   | 4 734   | 0.85                     | 0.15                    | 3 420  |   |  | 38  |                                      | 10 697 |
| FALHER B-4                                   | 552   | 0.85                     | 0.15                    | 399  |   |  | 38  |                                      | 3 760  |
| FALHER B-6                                   | 16  | 0.75                     | 0.20                    | 10   |   |  | 38  |                                      | 128    |
| FALHER B-7                                   | 32  | 0.75                     | 0.15                    | 20   |   |  | 38  |                                      | 150    |
| FALHER B-8                                   | 330   | 0.85                     | 0.15                    | 239  |   |  | 38  |                                      | 1 964  |
| FALHER D-2                                   | 725   | 0.85                     | 0.15                    | 524  |   |  | 38  |                                      | 3 107  |
| FALH A1579, 11B357BD2 TOTAL                  | 15 638  | 0.85                     | 0.15                    | 11 257   | 3 525   | 7 732  | 38  | 290 027                              |        |
| FALHER B-2                                   | 1 276   | 0.85                     | 0.15                    | 922  | 231   | 691  | 38  | 25 919                               | 1 971  |
| FALHER B-9                                   | 1 127   | 0.85                     | 0.15                    | 814  | 332   | 482  | 38  | 18 080                               | 4 978  |
| FALHER B-10                                  | 720   | 0.85                     | 0.15                    | 520  | 26  | 494  | 38  | 18 530                               | 4 277  |
| FALHER B-12                                  | 654   | 0.85                     | 0.15                    | 473  | 419   | 54   | 38  | 2 026                                | 1 597  |
| FALH A TIGHT SDO70-11                        | 16 134  | 0.35                     | 0.15                    | 4 800  |   | 4 800  | 38  | 180 048                              | 57 336 |
| FALH B TIGHT SDO70-11                        | 8 470   | 0.50                     | 0.15                    | 3 600  |   | 3 600  | 38  | 135 036                              | 32 088 |
| CADOMIN A                                    | 7 247   | 0.70                     | 0.05                    | 4 820  | 38  | 4 782  | 37  | 178 990                              | 25 730 |
| HALFWAY A                                    | 663   | 0.70                     | 0.25                    | 348  |   | 348  | 38  | 13 304                               | 1 058  |
| OTHER  | 8 838   |                          |                         | 5 617  | 373   | 5 244  |   | 197 350                              |        |
| TOTAL-ELMWORTH                               | 76 576  |                          |                         | 43 635   | 8 065   | 35 570   |   | 1 334 747                            |        |
| ELNDRA 035-22W4                              |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE A                            | 557   | 0.75                     | 0.05                    | 397  | 266   | 131  | 41  | 5 395                                | 3 654  |
| LOWER MANNVILLE A                            | 789   | 0.90                     | 0.10                    | 639  | 190   | 449  | 41  | 18 490                               | 3 039  |
| OTHER  | 854   |                          |                         | 541  | 22  | 519  |   | 21 170                               |        |
| TOTAL-ELNDRA                                 | 2 200   |                          |                         | 1 577  | 478   | 1 099  |   | 45 055                               |        |
| ELTHAM (SA) 018-26W4<br>TOTAL-ELTHAM         | 23  |                          |                         | 11   |   | 11   |   | 412                                  |        |
| EMPRESS 024-02W4<br>TOTAL-EMPRESS            | 155   |                          |                         | 107  |   | 107  |   | 4 005                                |        |
| ENCHANT 014-16W4                             |   |                          |                         |  |   |  |   |                                      |        |
| BOW ISLAND I                                 | 397   | 0.80                     | 0.05                    | 302  | 204   | 98   | 37 <sup>a</sup>                             | 3 668                                | 6 620  |
| BASAL COLDRAID A                             | 780   | 0.85                     | 0.05                    | 630  | 497   | 133  | 37  | 4 978                                | 4 363  |
| UPPER MANNVILLE E                            | 682   | 0.85                     | 0.05                    | 551  | 7   | 544  | 37 <sup>a</sup>                             | 20 362                               | 3 710  |
| UPPER MANNVILLE L                            | 482   | 0.90                     | 0.05                    | 412  | 10  | 402  | 37  | 15 047                               | 1 830  |
| OTHER  | 5 170   |                          |                         | 3 635  | 1 065   | 2 570  |   | 96 850                               |        |
| TOTAL-ENCHANT                                | 7 511   |                          |                         | 5 530  | 1 783   | 3 747  |   | 140 905                              |        |
| ENDIANG 035-16W4<br>TOTAL-ENDIANG            | 688   |                          |                         | 465  | 130   | 335  |   | 13 796                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20  |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                   |
| m                           | frac     | frac        | kPa                 | OC   | frac     | frac                           | m                          |              |                          |   |
| 3.98                        | 0.094    | 0.65        | 12 870              | 64   | 0.858    | 0.62                           | 1 853.4                    | 1970         | 1985                     | PANALTA TCPL                              |
| 3.32                        | 0.106    | 0.70        | 12 160              | 64   | 0.862    | 0.62                           | 1 658.9                    | 1978         | 1985                     | PANALTA TCPL PROGAS                       |
| 0.60                        | 0.041    | 0.40        | 14 590              | 83   | 0.868    | 0.65                           | 2 041.3                    | 1977         | 1985                     | TCPL PRODUCTION DECLINE                   |
| 2.13                        | 0.044    | 0.50        | 15 400              | 71   | 0.843    | 0.65                           | 2 138.3                    | 1977         | 1985                     |   |
| 2.06                        | 0.058    | 0.55        | 15 470              | 71   | 0.842    | 0.65                           | 2 074.6                    | 1978         | 1985                     |   |
| 4.96                        | 0.073    | 0.65        | 15 030              | 72   | 0.865    | 0.63                           | 2 060.5                    | 1977         | 1985                     |   |
| 4.40                        | 0.081    | 0.60        | 13 920              | 69   | 0.860    | 0.63                           | 1 917.0                    | 1955         | 1985                     |   |
| 3.09                        | 0.080    | 0.60        | 15 570              | 71   | 0.846    | 0.64                           | 2 034.0                    | 1977         | 1985                     |   |
| 1.50                        | 0.080    | 0.70        | 22 750              | 85   | 0.869    | 0.72                           | 2 103.8                    | 1978         | 1985                     |   |
|                             |          |             |                     |      |          |                                |                            | 1955         | 1985                     | PANALTA PROGAS TCPL                       |
| 4.26                        | 0.066    | 0.60        | 14 840              | 71   | 0.855    | 0.64                           | 1 954.9                    | 1970         | 1985                     |   |
| 1.73                        | 0.094    | 0.70        | 14 800              | 71   | 0.844    | 0.65                           | 1 963.5                    | 1976         | 1985                     |   |
| 2.05                        | 0.065    | 0.60        | 14 090              | 64   | 0.824    | 0.68                           | 1 930.7                    | 1970         | 1985                     |   |
| 16.50                       | 0.090    | 0.65        | 15 165              | 78   | 0.839    | 0.67                           | 1 940.1                    | 1976         | 1985                     |   |
| 4.60                        | 0.040    | 0.65        | 14 710              | 73   | 0.868    | 0.75                           | 1 757.0                    | 1978         | 1985                     |   |
| 0.50                        | 0.042    | 0.45        | 14 980              | 71   | 0.834    | 0.68                           | 2 003.2                    | 1978         | 1985                     |   |
| 6.87                        | 0.076    | 0.65        | 13 550              | 69   | 0.864    | 0.62                           | 1 858.1                    | 1978         | 1985                     |   |
| 4.09                        | 0.049    | 0.55        | 13 700              | 69   | 0.855    | 0.63                           | 2 000.6                    | 1976         | 1985                     |   |
| 2.02                        | 0.061    | 0.70        | 15 120              | 81   | 0.844    | 0.67                           | 1 996.0                    | 1979         | 1985                     |   |
| 2.93                        | 0.070    | 0.70        | 15 770              | 81   | 0.860    | 0.65                           | 2 007.7                    | 1977         | 1985                     |   |
| 2.70                        | 0.067    | 0.60        | 15 800              | 69   | 0.848    | 0.63                           | 2 062.7                    | 1977         | 1985                     |   |
| 2.61                        | 0.077    | 0.60        | 19 990              | 71   | 0.854    | 0.64                           | 2 006.7                    | 1976         | 1985                     |   |
|                             |          |             |                     |      |          |                                |                            | 1955         | 1985                     | PANALTA PROGAS TCPL                       |
| 5.27                        | 0.118    | 0.70        | 15 150              | 69   | 0.847    | 0.63                           | 1 874.8                    | 1977         | 1985                     | TCPL                                      |
| 4.05                        | 0.062    | 0.60        | 15 290              | 69   | 0.846    | 0.63                           | 2 125.2                    | 1978         | 1985                     | TCPL                                      |
| 3.92                        | 0.055    | 0.50        | 15 930              | 69   | 0.848    | 0.63                           | 2 164.3                    | 1978         | 1985                     | TCPL                                      |
| 5.38                        | 0.078    | 0.65        | 15 320              | 69   | 0.848    | 0.63                           | 1 883.4                    | 1979         | 1985                     | TCPL                                      |
| 3.97                        | 0.082    | 0.60        | 14 970              | 71   | 0.859    | 0.64                           | 2 025.2                    | 1955         | 1985                     | PANALTA PROGAS TCPL                       |
| 4.33                        | 0.077    | 0.55        | 14 750              | 69   | 0.852    | 0.63                           | 1 871.4                    | 1955         | 1985                     | PANALTA PROGAS TCPL                       |
| 4.88                        | 0.050    | 0.60        | 18 810              | 88   | 0.912    | 0.74                           | 2 538.6                    | 1956         | 1982                     | PANALTA PROGAS TCPL PART OF CDM POOL NO.1 |
| 4.73                        | 0.080    | 0.65        | 29 750              | 89   | 0.918    | 0.70                           | 2 642.0                    | 1978         | 1980                     | PANALTA TCPL                              |
| 1.41                        | 0.186    | 0.70        | 8 200               | 48   | 0.875    | 0.64                           | 1 537.2                    | 1969         | 1982                     | CNG KANNGAZ TCPL                          |
| 2.44                        | 0.177    | 0.65        | 8 860               | 49   | 0.846    | 0.68                           | 1 540.9                    | 1969         | 1985                     | CNG TCPL                                  |
| 1.02                        | 0.155    | 0.60        | 5 940               | 24   | 0.899    | 0.58                           | 715.6                      | 1972         | 1985                     | CWNG CWNGNUL PANALTA                      |
| 1.47                        | 0.200    | 0.70        | 8 800               | 30   | 0.833    | 0.65                           | 872.3                      | 1968         | 1982                     | TCPL MATERIAL BALANCE                     |
| 1.25                        | 0.200    | 0.60        | 10 820              | 32   | 0.823    | 0.63                           | 999.7                      | 1966         | 1982                     | PANALTA PROGAS TCPL                       |
| 1.85                        | 0.197    | 0.60        | 10 830              | 33   | 0.835    | 0.62                           | 986.2                      | 1966         | 1982                     | TCPL                                      |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE      | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>ENDONA (SA) 006-09W4</b><br>TOTAL-ENDONA       | 23  |                          |                         | 16   |   | 16   |   | 605                                  |        |
| <b>ENTICE 028-24W4</b>                            |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER P                                     | 562   | 0.60                     | 0.05                    | 320  | 190   | 130  | 36  | 4 720                                | 7 055  |
| BELLY RIVER B                                     | 693   | 0.60                     | 0.05                    | 395  |   |  | 36  |                                      | 3 359  |
| BELLY RIVER K                                     | 804   | 0.60                     | 0.05                    | 458  |   |  | 36  |                                      | 7 401  |
| BELLY RIVER B & K TOTAL                           | 1 498   | 0.60                     | 0.05                    | 854  | 729   | 125  | 36  | 4 539                                |        |
| OTHER   | 959   |                          |                         | 473  | 207   | 266  |   | 9 711                                |        |
| TOTAL-ENTICE                                      | 3 019   |                          |                         | 1 647  | 1 126   | 521  |   | 18 970                               |        |
| <b>ERITH 048-17W5</b><br>TOTAL-ERITH              | 448   |                          |                         | 327  |   | 327  |   | 13 220                               |        |
| <b>ERSKINE 039-21W4</b>                           |   |                          |                         |  |   |  |   |                                      |        |
| BLAIRMORE   |   | 0.80                     | 0.10                    |  |   |  | 41  |                                      | 433    |
| BLAIRMORE   |   | 0.80                     | 0.10                    |  |   |  | 41  |                                      | 934    |
| BLAIRMORE TOTAL                                   | 1 175   | 0.80                     | 0.10                    | 846  | 644   | 202  | 41  | 8 242                                |        |
| D-3 SOLN  | 537   | 0.65                     | 0.50                    | 175 <sup>b</sup>   |   |  | 42  |                                      |        |
| D-3 ASSOC   | 828   | 0.85                     | 0.15                    | 598 <sup>b</sup>   | 373 <sup>b</sup>  | 400  | 42  | 16 620                               | 1 093  |
| OTHER   | 3 354   |                          |                         | 2 143  | 534   | 1 609  |   | 64 885                               |        |
| TOTAL-ERSKINE                                     | 5 894   |                          |                         | 3 762  | 1 551   | 2 211  |   | 89 747                               |        |
| <b>ESMOND (SA) 126-20W5</b><br>TOTAL-ESMOND       | 11  |                          |                         | 8  |   | 8  |   | 299                                  |        |
| <b>ESTHER 031-02W4</b>                            |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A ASSOC                                    | 1 150   | 0.80                     | 0.05                    | 874  |   |  | 38  |                                      | 7 455  |
| VIKING A ASSOC                                    | 176   | 0.80                     | 0.05                    | 134  |   |  | 38  |                                      | 2 044  |
| VIKING A TOTAL                                    | 1 326   | 0.80                     | 0.05                    | 1 008  |   | 1 008  | 38  | 38 485                               |        |
| UPPER MANNVILLE A                                 | 618   | 0.80                     | 0.05                    | 469  | 185   | 284  | 38  | 10 738                               | 1 976  |
| UPPER MANNVILLE E                                 | 372   | 0.85                     | 0.05                    | 300  | 199   | 101  | 37  | 3 780                                | 1 956  |
| BANFF A   | 850   | 0.90                     | 0.05                    | 727  | 689   | 38   | 37  | 1 422                                | 200    |
| OTHER   | 1 860   |                          |                         | 1 264  | 384   | 880  |   | 32 917                               |        |
| TOTAL-ESTHER                                      | 5 026   |                          |                         | 3 768  | 1 457   | 2 311  |   | 87 342                               |        |
| <b>ESTUARY 023-22W4</b><br>TOTAL-ESTUARY          | 639   |                          |                         | 433  | 42  | 391  |   | 14 854                               |        |
| <b>ETHEL LAKE 064-03W4</b><br>TOTAL-ETHEL LAKE    | 364   |                          |                         | 221  | 177   | 44   |   | 1 647                                |        |
| <b>ETZIKOM 006-08W4</b>                           |   |                          |                         |  |   |  |   |                                      |        |
| BOW ISLAND A                                      | 1 913   | 0.75                     | 0.05                    | 1 350  | 1 274   | 76   | 35  | 2 646                                | 10 266 |
| OTHER   | 133   |                          |                         | 90   |   | 90   |   | 3 334                                |        |
| TOTAL-ETZIKOM                                     | 2 046   |                          |                         | 1 440  | 1 274   | 166  |   | 5 980                                |        |
| <b>EUREKA (SA) 088-03W6</b><br>TOTAL-EUREKA       | 95  |                          |                         | 58   |   | 58   |   | 2 171                                |        |
| <b>EVANSBURG (SA) 053-07W5</b><br>TOTAL-EVANSBURG | 184   |                          |                         | 131  |   | 131  |   | 5 541                                |        |
| <b>EVERGREEN (SA) 113-23W5</b><br>TOTAL-EVERGREEN | 11  |                          |                         | 6  |   | 6  |   | 236                                  |        |
| <b>EVI 087-13W5</b><br>TOTAL-EVI                  | 4   |                          |                         | 3  |   | 3  |   | 112                                  |        |
| <b>EWING LAKE 037-21W4</b><br>TOTAL-EWING LAKE    | 115   |                          |                         | 55   | 3   | 52   |   | 1 946                                |        |
| <b>EXCELSIOR 056-24W4</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| MANNVILLE A SOLN                                  | 54  | 0.65                     | 0.35                    | 23 <sup>b</sup>  |   |  | 36  |                                      |        |
| MANNVILLE A ASSOC                                 | 764   | 0.80                     | 0.10                    | 549 <sup>b</sup>   | 222 <sup>b</sup>  | 350  | 36  | 12 709                               | 804    |
| OTHER   | 849   |                          |                         | 584  | 102   | 482  |   | 17 551                               |        |
| TOTAL-EXCELSIOR                                   | 1 667   |                          |                         | 1 156  | 324   | 832  |   | 30 260                               |        |
| <b>EXPANSE (SA) 088-04W6</b><br>TOTAL-EXPANSE     | 121   |                          |                         | 80   |   | 80   |   | 3 157                                |        |
| <b>EYEHILL 041-06W4</b><br>TOTAL-EYEHILL          | 166   |                          |                         | 106  |   | 106  |   | 3 968                                |        |



| 10                          | 11                      | 12                   | 13                      | 14             | 15                      | 16                             | 17                         | 18                           | 19                           | 20   |
|-----------------------------|-------------------------|----------------------|-------------------------|----------------|-------------------------|--------------------------------|----------------------------|------------------------------|------------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE     | TEMP           | COMPRESS                | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR                 | DATE<br>LAST<br>REVIEWED     | DESCRIPTION AND REMARKS  |
| m                           | frac                    | frac                 | kPa                     | °C             | frac                    | frac                           | m                          |                              |                              |  |
| 1.16<br>7.14<br>2.93        | 0.230<br>0.214<br>0.208 | 0.60<br>0.60<br>0.55 | 2 960<br>2 960<br>3 340 | 35<br>30<br>29 | 0.952<br>0.948<br>0.941 | 0.57<br>0.58<br>0.57           | 741.4<br>791.6<br>821.9    | 1974<br>1969<br>1972<br>1969 | 1985<br>1985<br>1985<br>1985 | CWNGNUL PRODUCTION DECLINE<br>MATERIAL BALANCE                               |
| 2.87<br>6.47                | 0.130<br>0.130          | 0.60<br>0.60         | 9 650<br>9 650          | 55<br>21       | 0.858<br>0.774          | 0.67<br>0.67                   | 1 353.3<br>1 353.7         | 1952<br>1952<br>1952         | 1980<br>1981<br>1981         | PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>TCPL                             |
| 9.46                        | 0.063                   | 0.80                 | 15 340                  | 60             | 0.825                   | 0.75<br>0.75                   | 1 631.6                    | 1952                         | 1985                         | CONCURRENT PRODUCTION<br>CONCURRENT PRODUCTION                               |
| 1.77<br>1.16                | 0.223<br>0.207          | 0.55<br>0.50         | 6 470<br>6 430          | 24<br>23       | 0.872<br>0.863          | 0.62<br>0.61                   | 711.2<br>682.7             | 1960<br>1960<br>1960         | 1985<br>1985<br>1985         | KANNGAZ MIP  |
| 2.05<br>1.33<br>10.49       | 0.270<br>0.250<br>0.190 | 0.70<br>0.65<br>0.70 | 7 450<br>7 450<br>8 100 | 27<br>25<br>33 | 0.875<br>0.860<br>0.870 | 0.59<br>0.60<br>0.60           | 752.6<br>744.6<br>851.6    | 1969<br>1972<br>1957         | 1984<br>1983<br>1983         | MATERIAL BALANCE<br>MATERIAL BALANCE<br>MATERIAL BALANCE                     |
| 3.05                        | 0.196                   | 0.65                 | 5 550                   | 25             | 0.909                   | 0.60                           | 680.6                      | 1951                         | 1967                         | PWGE MATERIAL BALANCE  |
| 8.98                        | 0.200                   | 0.65                 | 7 580                   | 33             | 0.868                   | 0.63<br>0.63                   | 1 062.2                    | 1949<br>1949                 | 1978<br>1978                 | CWNGNUL NORCEN CONCURRENT PRODUCTION<br>CWNGNUL NORCEN CONCURRENT PRODUCTION |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>EYREMORE 018-18W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| BOW ISLAND A                                 | 639   | 0.80                     | 0.05                    | 485  | 118   | 367  | 38  | 13 876                               | 3 015  |
| OTHER  | 911   |                          |                         | 627  | 47  | 580  |   | 21 880                               |        |
| TOTAL-EYREMORE                               | 1 550   |                          |                         | 1 112  | 165   | 947  |   | 35 756                               |        |
| <b>FAIRYDELL-BON ACCORD<br/>057-24W4</b>     |   |                          |                         |  |   |  |   |                                      |        |
| UPPER VIKING A                               | 1 097   | 0.95                     | 0.04                    | 1 000  |   |  | 39  |                                      | 12 142 |
| MIDDLE VIKING A                              | 3 070   | 0.95                     | 0.04                    | 2 800  |   |  | 39  |                                      | 9 921  |
| MIDDLE VIKING B                              | 560   | 0.95                     | 0.04                    | 511  |   |  | 40  |                                      | 1 865  |
| U VIK A & M VIK AB TOTAL                     | 4 727   | 0.95                     | 0.05                    | 4 311  | 3 303   | 1 008  | 39  | 39 241                               |        |
| BASAL MANNVILLE A ASSOC                      | 520   | 0.90                     | 0.05                    | 445  | 100   | 345  | 37  | 12 786                               | 1 083  |
| BASAL MANNVILLE C SOLN                       | 47  | 0.65                     | 0.05                    | 29 <sup>b</sup>  |   |  | 37  |                                      |        |
| BASAL MANNVILLE C ASSOC                      | 437   | 0.90                     | 0.10                    | 355 <sup>b</sup>   | 341 <sup>b</sup>  | 43   | 37  | 1 594                                | 598    |
| OTHER  | 966   |                          |                         | 662  | 42  | 620  |   | 23 280                               |        |
| TOTAL-FAIRYDELL-BON ACCORD                   | 6 697   |                          |                         | 5 802  | 3 786   | 2 016  |   | 76 901                               |        |
| <b>FAITH (SA) 003-12W4</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FAITH                                  | 140   |                          |                         | 100  |   | 100  |   | 4 305                                |        |
| <b>FALLIS (SA) 053-05W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FALLIS                                 | 48  |                          |                         | 34   |   | 34   |   | 1 425                                |        |
| <b>FARMINGTON 080-11W6</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| KISKATINAW A                                 | 785   | 0.85                     | 0.05                    | 634  | 127   | 507  | 38  | 19 357                               | 200    |
| OTHER  | 168   |                          |                         | 118  |   | 118  |   | 4 528                                |        |
| TOTAL-FARMINGTON                             | 953   |                          |                         | 752  | 127   | 625  |   | 23 885                               |        |
| <b>FARRELL 034-16W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FARRELL                                | 386   |                          |                         | 262  | 71  | 191  |   | 7 147                                |        |
| <b>FARROW 020-24W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FARROW                                 | 227   |                          |                         | 148  | 1   | 147  |   | 5 396                                |        |
| <b>FAWCETT (SA) 075-21W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FAWCETT                                | 32  |                          |                         | 18   |   | 18   |   | 661                                  |        |
| <b>FENN WEST 036-20W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FENN WEST                              | 1 379   |                          |                         | 873  | 79  | 794  |   | 33 299                               |        |
| <b>FENN-BIG VALLEY 036-20W4</b>              |   |                          |                         |  |   |  |   |                                      |        |
| VIKING B                                     | 681   | 0.80                     | 0.10                    | 491  | 418   | 73   | 43  | 3 143                                | 8 105  |
| D-2 A ASSOC                                  | 50  | 0.75                     | 0.30                    | 26   |   |  | 42 <sup>a</sup>                             |                                      | 65     |
| D-2 A SOLN                                   | 5 790   | 0.70                     | 0.55                    | 1 824  |   |  | 42 <sup>a</sup>                             |                                      |        |
| D-2 A ASSOC                                  | 28  | 0.75                     | 0.30                    | 15   |   |  | 42 <sup>a</sup>                             |                                      | 78     |
| D-2 A ASSOC                                  | 35  | 0.75                     | 0.30                    | 19   |   |  | 42 <sup>a</sup>                             |                                      | 53     |
| D-2 A ASSOC                                  | 254   | 0.75                     | 0.30                    | 134  |   |  | 42 <sup>a</sup>                             |                                      | 190    |
| D-2 A ASSOC                                  | 135   | 0.75                     | 0.30                    | 71   |   |  | 42 <sup>a</sup>                             |                                      | 199    |
| D-2 A TOTAL                                  | 6 292   | 0.70                     | 0.55                    | 2 089  | 1 344   | 745  | 42 <sup>a</sup>                             | 30 954                               |        |
| OTHER  | 1 433   |                          |                         | 788  | 192   | 596  |   | 24 237                               |        |
| TOTAL-FENN-BIG VALLEY                        | 8 406   |                          |                         | 3 368  | 1 954   | 1 414  |   | 58 334                               |        |
| <b>FENNER 032-14W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FENNER                                 | 59  |                          |                         | 39   |   | 39   |   | 1 489                                |        |
| <b>FERGUSON 003-17W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FERGUSON                               | 38  |                          |                         | 27   |   | 27   |   | 1 162                                |        |
| <b>FERINTOSH 044-21W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FERINTOSH                              | 669   |                          |                         | 419  | 169   | 250  |   | 10 466                               |        |
| <b>FERRIER 039-08W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM D ASSOC                              |   | 0.85                     | 0.10                    |  |   |  | 40 <sup>a</sup>                             |                                      | 1 992  |
| CARDIUM D SOLN                               | 3 042   | 0.77                     | 0.15                    | 1 991 <sup>b</sup>   |   |  | 40 <sup>a</sup>                             |                                      |        |
| CARDIUM D ASSOC                              |   | 0.85                     | 0.10                    |  |   |  | 40 <sup>a</sup>                             | 1 710                                |        |
| CARDIUM D ASSOC                              |   | 0.85                     | 0.10                    |  |   |  | 40 <sup>a</sup>                             | 508                                  |        |
| CARDIUM D ASSOC                              |   | 0.85                     | 0.10                    |  |   |  | 40 <sup>a</sup>                             | 1 266                                |        |
| CARDIUM D TOTAL                              | 7 356   | 0.80                     | 0.10                    | 5 291 <sup>b</sup>   | 3 080 <sup>b</sup>  | 2 211  | 40 <sup>a</sup>                             | 89 391                               |        |
| CARDIUM E ASSOC                              | 5 988   | 0.90                     | 0.10                    | 4 850 <sup>b</sup>   |   |  | 40 <sup>a</sup>                             |                                      | 5 059  |
| CARDIUM E SOLN                               | 6 098   | 0.16                     | 0.15                    | 829 <sup>b</sup>   |   |  | 40 <sup>a</sup>                             |                                      |        |
| CARDIUM E ASSOC                              | 5 703   | 0.90                     | 0.10                    | 4 620 <sup>b</sup>   |   |  | 40  |                                      | 4 517  |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20  |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                               |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |   |
| 2.66                        | 0.172    | 0.55        | 7 830               | 29   | 0.876    | 0.58                           | 953.0                      | 1953         | 1985                     | PANALTA TCPL  |
| 1.46                        | 0.240    | 0.50        | 5 110               | 37   | 0.909    | 0.60                           | 802.8                      | 1947         | 1984                     | PART OF VIK POOL NO. 1                                |
| 3.23                        | 0.200    | 0.60        | 5 820               | 36   | 0.901    | 0.59                           | 816.8                      | 1947         | 1984                     | PART OF VIK POOL NO. 1 MATERIAL BALANCE               |
| 2.79                        | 0.200    | 0.60        | 5 820               | 37   | 0.897    | 0.61                           | 779.0                      | 1947         | 1984                     | PART OF VIK POOL NO. 1 MATERIAL BALANCE               |
|                             |          |             |                     |      |          |                                |                            | 1947         | 1984                     | CWNGNUL KANNGAZ NORCEN PANALTA PART OF VIK POOL NO. 1 |
| 5.39                        | 0.180    | 0.70        | 7 070               | 43   | 0.866    | 0.63                           | 1 028.7                    | 1951         | 1984                     | NUL CWNGNUL   |
| 6.64                        | 0.210    | 0.70        | 7 310               | 42   | 0.882    | 0.64                           | 1 058.0                    | 1965         | 1982                     | NORCEN PANALTA CONCURRENT PRODUCTION                  |
|                             |          |             |                     |      |          |                                |                            | 1965         | 1982                     | NORCEN PANALTA CONCURRENT PRODUCTION                  |
| 20.35                       | 0.170    | 0.70        | 18 000              | 81   | 0.891    | 0.59                           | 2 313.8                    | 1977         | 1978                     | PANALTA   |
| 1.42                        | 0.140    | 0.55        | 7 240               | 41   | 0.853    | 0.66                           | 1 180.7                    | 1952         | 1985                     | CWNGNUL KANNGAZ PANALTA TCPL PART OF VIK POOL NO. 4   |
| 4.48                        | 0.118    | 0.85        | 12 750              | 48   | 0.660    | 0.96                           | 1 597.1                    | 1950         | 1984                     |   |
|                             |          |             |                     |      |          | 0.96                           |                            | 1950         | 1984                     |   |
| 2.09                        | 0.118    | 0.85        | 12 750              | 48   | 0.660    | 0.96                           | 1 573.6                    | 1950         | 1984                     |   |
| 3.89                        | 0.118    | 0.85        | 12 750              | 48   | 0.660    | 0.96                           | 1 596.7                    | 1950         | 1984                     |   |
| 7.79                        | 0.118    | 0.85        | 12 750              | 48   | 0.660    | 0.96                           | 1 590.0                    | 1950         | 1985                     |   |
| 3.96                        | 0.118    | 0.85        | 12 750              | 48   | 0.660    | 0.96                           | 1 578.1                    | 1950         | 1984                     |   |
|                             |          |             |                     |      |          |                                |                            | 1950         | 1984                     | CWNGNUL   |
| 2.06                        | 0.157    | 0.90        | 21 820              | 70   | 0.832    | 0.71                           | 2 072.9                    | 1963         | 1984                     | PRODUCTION DECLINE CONCURRENT PRODUCTION              |
|                             |          |             |                     |      |          | 0.71                           |                            | 1963         | 1984                     | PRODUCTION DECLINE CONCURRENT PRODUCTION              |
| 1.81                        | 0.177    | 0.90        | 21 820              | 70   | 0.832    | 0.71                           | 2 037.0                    | 1963         | 1984                     | PRODUCTION DECLINE                                    |
| 0.88                        | 0.157    | 0.90        | 21 820              | 70   | 0.832    | 0.71                           | 2 047.5                    | 1963         | 1984                     | PRODUCTION DECLINE                                    |
| 1.55                        | 0.104    | 0.75        | 21 820              | 70   | 0.832    | 0.71                           | 2 027.7                    | 1963         | 1984                     | PRODUCTION DECLINE                                    |
|                             |          |             |                     |      |          |                                |                            | 1963         | 1984                     | PRODUCTION DECLINE                                    |
| 3.60                        | 0.159    | 0.90        | 21 820              | 65   | 0.799    | 0.79                           | 2 065.8                    | 1965         | 1985                     | A&S TCPL CONCURRENT PRODUCTION                        |
|                             |          |             |                     |      |          | 0.79                           |                            | 1965         | 1985                     | CONCURRENT PRODUCTION                                 |
| 3.84                        | 0.159    | 0.90        | 21 820              | 65   | 0.799    | 0.75                           | 2 058.9                    | 1965         | 1985                     | CONCURRENT PRODUCTION                                 |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>8</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>FERRIER 039-08W5 (CONTINUED)</b>          |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM E TOTAL                              | 17 789  | 0.65                     | 0.10                    | 10 299 <sup>b</sup>  | 7 234 <sup>b</sup>  | 3 065  | 40  | 123 918                              |        |
| CARDIUM G ASSOC                              | 6   | 0.75                     | 0.10                    | 4  |   |  | 40 <sup>a</sup>                             |                                      | 87     |
| CARDIUM G ASSOC                              | 66  | 0.75                     | 0.10                    | 45   |   |  | 40 <sup>a</sup>                             |                                      | 232    |
| CARDIUM G & L SOLN                           | 4 408   | 0.33                     | 0.20                    | 1 164  |   |  | 40  |                                      |        |
| CARDIUM G & L TOTAL                          | 4 480   | 0.35                     | 0.20                    | 1 213  | 503   | 710  | 40  | 28 705                               |        |
| CARDIUM Q                                    | 993   | 0.90                     | 0.10                    | 804  |   |  | 40  |                                      | 1 630  |
| CARDIUM Z                                    | 321   | 0.85                     | 0.10                    | 246  |   |  | 40 <sup>a</sup>                             |                                      | 1 314  |
| CARDIUM Q & Z TOTAL                          | 1 314   | 0.90                     | 0.10                    | 1 050  | 107   | 943  | 40  | 38 125                               |        |
| CARDIUM N ASSOC                              | 360   | 0.85                     | 0.10                    | 275 <sup>b</sup>   |   |  | 40  |                                      | 440    |
| CARDIUM N SOLN                               | 786   | 0.65                     | 0.15                    | 434 <sup>b</sup>   |   |  | 40  |                                      |        |
| CARDIUM B, N & VIK A TOTAL                   | 1 146   | 0.70                     | 0.15                    | 709 <sup>b</sup>   | 553 <sup>b</sup>  | 156  | 40 <sup>a</sup>                             | 6 307                                |        |
| GLAUC 21-040-07                              | 367   | 0.90                     | 0.05                    | 313  |   | 313  | 41  | 12 889                               | 200    |
| OTHER  | 7 755   |                          |                         | 5 160  | 301   | 4 859  |   | 194 468                              |        |
| TOTAL-FERRIER                                | 40 207  |                          |                         | 24 035   | 11 778  | 12 257   |   | 493 803                              |        |
| <b>FERRYBANK 044-27W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER C                                | 2 256   | 0.70                     | 0.05                    | 1 500  | 603   | 897  | 40 <sup>a</sup>                             | 35 925                               | 8 570  |
| VIKING A                                     | 906   | 0.60                     | 0.05                    | 517  | 136   | 381  | 39  | 14 973                               | 8 392  |
| GLAUCONITIC A                                | 2 672   | 0.85                     | 0.15                    | 1 930  | 261   | 1 669  | 45  | 75 289                               | 4 415  |
| LOWER MANNVILLE F                            | 432   | 0.85                     | 0.10                    | 330  | 213   | 117  | 38  | 4 467                                | 502    |
| LOWER MANNVILLE A                            |   | 0.90                     | 0.10                    |  |   |  | 38  |                                      | 1 190  |
| LOWER MANNVILLE B                            |   | 0.90                     | 0.10                    |  |   |  | 38  |                                      | 1 214  |
| LOWER MANNVILLE A & B TOTAL                  | 765   | 0.90                     | 0.10                    | 620  | 522   | 98   | 38  | 3 742                                |        |
| OTHER  | 3 479   |                          |                         | 2 400  | 614   | 1 786  |   | 70 575                               |        |
| TOTAL-FERRYBANK                              | 10 510  |                          |                         | 7 297  | 2 349   | 4 948  |   | 204 971                              |        |
| <b>FICKLE 051-19W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| ELKTON 33-051-19                             | 648   | 0.80                     | 0.10                    | 468  |   | 468  | 39  | 18 392                               | 440    |
| OTHER  | 2 466   |                          |                         | 1 027  |   | 1 027  |   | 40 747                               |        |
| TOTAL-FICKLE                                 | 3 114   |                          |                         | 1 495  |   | 1 495  |   | 59 139                               |        |
| <b>FIGURE LAKE 063-18W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE B                            |   | 0.60                     | 0.04                    |  |   |  | 37  |                                      | 200    |
| D-2 B  |   | 0.60                     | 0.04                    |  |   |  | 37 <sup>a</sup>                             |                                      | 7 481  |
| UPPER MANN B & D-2 B TOTAL                   | 2 014   | 0.60                     | 0.05                    | 1 160  | 1 158   | 2  | 37  | 75                                   |        |
| OTHER  | 2 739   |                          |                         | 1 749  | 471   | 1 278  |   | 47 677                               |        |
| TOTAL-FIGURE LAKE                            | 4 753   |                          |                         | 2 909  | 1 629   | 1 280  |   | 47 752                               |        |
| <b>FINDLEY 057-06W6</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FINDLEY                                | 1 212   |                          |                         | 908  |   | 908  |   | 36 125                               |        |
| <b>FIR 058-21W5</b>                          |   |                          |                         |  |   |  |   |                                      |        |
| DUNVEGAN 07-060-22                           | 623   | 0.90                     | 0.05                    | 533  |   | 533  | 37  | 19 950                               | 200    |
| GETHING A                                    | 1 064   | 0.75                     | 0.10                    | 718  |   | 718  | 37  | 26 875                               | 2 443  |
| NORDEGG 04-057-20                            | 675   | 0.85                     | 0.15                    | 488  |   | 488  | 43  | 21 189                               | 200    |
| TRIASSIC C                                   | 9 974   | 0.80                     | 0.06                    | 7 500  | 1 882   | 5 618  | 43  | 243 934                              | 22 527 |
| D-3 A  | 35 556  | 0.45                     | 0.25                    | 1 200  |   | 1 200  | 37  | 44 916                               | 1 068  |
| D-3 03-060-21                                | 911   | 0.85                     | 0.25                    | 581  |   | 581  | 37  | 21 747                               | 128    |
| OTHER  | 3 230   |                          |                         | 2 048  |   | 2 048  |   | 79 083                               |        |
| TOTAL-FIR                                    | 52 033  |                          |                         | 13 068   | 1 882   | 11 186   |   | 457 694                              |        |
| <b>FIRE 113-07W6</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FIRE                                   | 338   |                          |                         | 224  | 9   | 215  |   | 8 760                                |        |
| <b>FISHER 068-05W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FISHER                                 | 1 015   |                          |                         | 515  | 19  | 496  |   | 18 600                               |        |
| <b>FISHING (SA) 057-01W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FISHING                                | 74  |                          |                         | 45   |   | 45   |   | 1 682                                |        |
| <b>FLAT 066-20W4</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| MANNVILLE A                                  | 615   | 0.85                     | 0.05                    | 497  | 342   | 155  | 38  | 5 918                                | 5 340  |
| WABAMUN A                                    | 3 583   | 0.90                     | 0.02                    | 3 160  | 2 068   | 1 092  | 37 <sup>a</sup>                             | 40 470                               | 8 290  |
| OTHER  | 1 452   |                          |                         | 957  | 177   | 780  |   | 29 783                               |        |
| TOTAL-FLAT                                   | 5 650   |                          |                         | 4 614  | 2 587   | 2 027  |   | 75 171                               |        |
| <b>FLOOD 085-25W5</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FLOOD                                  | 315   |                          |                         | 198  | 36  | 162  |   | 5 941                                |        |
| <b>FLORENCE (SA) 068-04W5</b>                |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-FLORENCE                               | 19  |                          |                         | 11   |   | 11   |   | 441                                  |        |



| 10   | 11   | 12   | 13   | 14                                  | 15   | 16   | 17   | 18   | 19   | 20  |
|--|--|--|--|-------------------------------------|--|--|--|--|--|---|
| AVERAGE<br>PAY<br>THICKNESS                      | POROSITY   | GAS<br>SATN                                  | INITIAL<br>PRESSURE                                      | TEMP                                | COMPRESS   | RAW GAS<br>RELATIVE<br>DENSITY               | MEAN<br>FORMATION<br>DEPTH                                     | DISC<br>YEAR   | DATE<br>LAST<br>REVIEWED                             | DISPOSITION AND REMARKS   |
| m  | frac   | frac   | kPa  | °C                                  | frac   | frac   | m  |  |  |   |
| 0.49<br>0.87                                     | 0.090<br>0.164                                     | 0.70<br>0.90                                 | 21 170<br>21 170   | 60<br>60                            | 0.817<br>0.817                                     | 0.71<br>0.71<br>0.68                         | 2 057.7<br>2 057.7   | 1965<br>1967<br>1967<br>1973<br>1967                 | 1985<br>1984<br>1984<br>1984<br>1984                 | A&S TCPL CONCURRENT PRODUCTION  |
| 2.86<br>1.84                                     | 0.125<br>0.065                                     | 0.80<br>0.90                                 | 22 000<br>22 570   | 73<br>62                            | 0.849<br>0.843                                     | 0.68<br>0.69<br>0.68                         | 2 247.1<br>2 303.7   | 1969<br>1975<br>1969                                 | 1984<br>1983<br>1984                                 | A&S TCPL CNG  |
| 2.78   | 0.074  | 0.90   | 22 340   | 83                                  | 0.851  | 0.70<br>0.70                                 | 2 232.4  | 1955<br>1955   | 1984<br>1984   | PANALTA PROGAS TCPL<br>PRODUCTION DECLINE CONCURRENT PRODUCTION<br>PRODUCTION DECLINE CONCURRENT PRODUCTION<br>CONCURRENT PRODUCTION                            |
| 6.00   | 0.180  | 0.75   | 24 300   | 66                                  | 0.901  | 0.64   | 2 473.5  | 1982   | 1982   |   |
| 4.03<br>1.89<br>5.72<br>2.39<br>2.36<br>2.25     | 0.217<br>0.126<br>0.126<br>0.160<br>0.204<br>0.196 | 0.55<br>0.55<br>0.60<br>0.80<br>0.75<br>0.70 | 5 370<br>8 060<br>12 000<br>12 710<br>13 340<br>13 340   | 35<br>45<br>47<br>45<br>63<br>63    | 0.906<br>0.874<br>0.762<br>0.754<br>0.795<br>0.795 | 0.60<br>0.62<br>0.70<br>0.70<br>0.73<br>0.73 | 901.4<br>1 443.8<br>1 566.3<br>1 587.7<br>1 710.3<br>1 731.2   | 1955<br>1955<br>1954<br>1970<br>1971<br>1981<br>1971 | 1983<br>1981<br>1985<br>1984<br>1985<br>1985<br>1984 | PANALTA TCPL<br>PANALTA TCPL<br>PANALTA TCPL PART OF GLAUC POOL NO.3<br>TCPL MATERIAL BALANCE NONCOMMERCIAL OIL<br>MATERIAL BALANCE<br>MATERIAL BALANCE<br>TCPL |
| 7.35   | 0.104  | 0.89   | 26 750   | 106                                 | 0.938  | 0.63   | 3 140.7  | 1953   | 1981   | BER   |
| 4.94<br>6.53                                     | 0.250<br>0.151                                     | 0.65<br>0.60                                 | 3 380<br>3 540   | 20<br>24                            | 0.932<br>0.934                                     | 0.57<br>0.57                                 | 530.0<br>680.0   | 1958<br>1955<br>1955                                 | 1984<br>1984<br>1984                                 | PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>TCPL  |
| 10.80<br>3.52<br>16.60<br>2.28<br>24.75<br>42.00 | 0.165<br>0.103<br>0.120<br>0.106<br>0.067<br>0.080 | 0.85<br>0.75<br>0.85<br>0.75<br>0.85<br>0.90 | 21 510<br>18 130<br>21 650<br>22 940<br>30 710<br>31 170 | 76<br>92<br>81<br>100<br>117<br>115 | 0.852<br>0.882<br>0.873<br>0.928<br>0.968<br>0.971 | 0.69<br>0.66<br>0.71<br>0.62<br>0.70<br>0.70 | 2 128.7<br>2 642.9<br>2 735.7<br>2 660.0<br>3 353.2<br>3 372.8 | 1976<br>1972<br>1980<br>1972<br>1974<br>1980         | 1978<br>1981<br>1980<br>1984<br>1985<br>1985         | A&S PROGAS TCPL<br>A&S PROGAS<br>A&S PROGAS TCPL MATERIAL BALANCE<br>PROGAS TCPL  |
| 3.00<br>13.35                                    | 0.120<br>0.226                                     | 0.50<br>0.40                                 | 3 340<br>3 380   | 27<br>21                            | 0.937<br>0.933                                     | 0.57<br>0.58                                 | 570.0<br>565.7   | 1949<br>1956   | 1982<br>1982   | TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE        | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| FLUME 062-05W5<br>TOTAL-FLUME                       | 50  |                          |                         | 36   |   | 36   |   | 1 347                                |        |
| FOLEY LAKE (SA) 065-06W5<br>TOTAL-FOLEY LAKE        | 113   |                          |                         | 86   |   | 86   |   | 3 091                                |        |
| FOREMOST 006-11W4<br>BOW ISLAND                     | 566   | 0.93                     | 0.05                    | 501  | 421   | 80   | 36 <sup>a</sup>                             | 2 875                                | 6 038  |
| OTHER   | 165   |                          |                         | 109  | 3   | 106  |   | 3 809                                |        |
| TOTAL-FOREMOST                                      | 731   |                          |                         | 610  | 424   | 186  |   | 6 684                                |        |
| FORESTBURG 042-15W4<br>TOTAL-FORESTBURG             | 3 254   |                          |                         | 2 095  | 166   | 1 929  |   | 72 202                               |        |
| FORSYTH 062-06W4<br>TOTAL-FORSYTH                   | 851   |                          |                         | 546  | 21  | 525  |   | 19 801                               |        |
| FORT ASSINIBOINE 062-04W5<br>TOTAL-FORT ASSINIBOINE | 417   |                          |                         | 286  |   | 286  |   | 11 350                               |        |
| FORT KENT 061-04W4<br>TOTAL-FORT KENT               | 774   |                          |                         | 443  | 339   | 104  |   | 3 834                                |        |
| FORT SASKATCHEWAN 054-22W4<br>U VIK A & M VIK A     | 9 096   | 0.85                     | 0.03                    | 7 500  |   |  | 38 <sup>a</sup>                             |                                      |        |
| U VIK A & M VIK A TOTAL                             | 9 096   | 0.85                     | 0.05                    | 7 500  | 7 280   | 220  | 38 <sup>a</sup>                             | 8 318                                |        |
| OTHER   | 297   |                          |                         | 183  | 3   | 180  |   | 6 799                                |        |
| TOTAL-FORT SASKATCHEWAN                             | 9 393   |                          |                         | 7 683  | 7 283   | 400  |   | 15 117                               |        |
| FORTY MILE 007-09W4<br>LOWER MANNVILLE E            | 1 754   | 0.90                     | 0.05                    | 1 500  | 677   | 823  | 38  | 31 118                               | 6 729  |
| OTHER   | 724   |                          |                         | 514  | 47  | 467  |   | 17 129                               |        |
| TOTAL-FORTY MILE                                    | 2 478   |                          |                         | 2 014  | 724   | 1 290  |   | 48 247                               |        |
| FOSTER (SA) 033-27W4<br>TOTAL-FOSTER                | 81  |                          |                         | 54   |   | 54   |   | 2 224                                |        |
| FOURTH 082-09W6<br>TOTAL-FOURTH                     | 661   |                          |                         | 443  |   | 443  |   | 20 433                               |        |
| FOX CREEK 061-18W5<br>VIKING A                      | 3 770   | 0.80                     | 0.10                    | 2 700  | 2 037   | 663  | 42  | 27 548                               | 8 296  |
| VIKING B  | 424   | 0.80                     | 0.10                    | 305  | 239   | 66   | 42  | 2 742                                | 200    |
| GETHING A   | 4 772   | 0.75                     | 0.05                    | 3 400  | 283   | 3 117  | 41  | 128 368                              | 10 548 |
| OTHER   | 3 559   |                          |                         | 2 040  | 357   | 1 683  |   | 68 994                               |        |
| TOTAL-FOX CREEK                                     | 12 525  |                          |                         | 8 445  | 2 916   | 5 529  |   | 227 642                              |        |
| FRANCIS 073-22W4<br>WABAMUN A                       | 518   | 0.65                     | 0.05                    | 320  |   | 320  | 37  | 11 738                               | 440    |
| OTHER   | 212   |                          |                         | 123  |   | 123  |   | 4 592                                |        |
| TOTAL-FRANCIS                                       | 730   |                          |                         | 443  |   | 443  |   | 16 330                               |        |
| FRANCIS SOUTH 072-21W4<br>TOTAL-FRANCIS SOUTH       | 40  |                          |                         | 22   |   | 22   |   | 824                                  |        |
| FREEMAN (SA) 066-12W5<br>TOTAL-FREEMAN              | 77  |                          |                         | 52   |   | 52   |   | 1 907                                |        |
| FRENCH (SA) 064-01W5<br>TOTAL-FRENCH                | 158   |                          |                         | 113  |   | 113  |   | 4 399                                |        |
| FURNESS (SA) 048-23W4<br>TOTAL-FURNESS              | 99  |                          |                         | 69   |   | 69   |   | 2 764                                |        |
| GADSBY 038-18W4<br>BELLY RIVER C                    | 1 104   | 0.65                     | 0.05                    | 682  | 37  | 645  | 39  | 25 110                               | 4 930  |
| OTHER   | 751   |                          |                         | 492  | 101   | 391  |   | 15 850                               |        |
| TOTAL-GADSBY  | 1 855   |                          |                         | 1 174  | 138   | 1 036  |   | 40 960                               |        |
| GAGE 082-03W6<br>TOTAL-GAGE                         | 729   |                          |                         | 502  |   | 502  |   | 19 150                               |        |



| 10                          | 11                      | 12                   | 13                         | 14             | 15                      | 16                             | 17                            | 18                   | 19                       | 20  |
|-----------------------------|-------------------------|----------------------|----------------------------|----------------|-------------------------|--------------------------------|-------------------------------|----------------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE        | TEMP           | COMPRESS                | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH    | DISC<br>DATE         | DATE<br>LAST<br>REVIEWED | DISTRIBUTION AND REMARKS  |
| m                           | frac                    | frac                 | kPa                        | °C             | frac                    | frac                           | m                             |                      |                          |   |
| 1.52                        | 0.200                   | 0.80                 | 4 830                      | 27             | 0.915                   | 0.59                           | 692.5                         | 1923                 | 1981                     | CWNG CWNGNUL CMG MATERIAL BALANCE   |
|                             | 0.210                   | 0.60                 | 5 550                      | 33             | 0.901                   | 0.60                           | 780.9                         | 1917<br>1917         | 1982<br>1982             | PART OF VIK POOL NO.2 MATERIAL BALANCE<br>CWNGNUL KANNGAZ NORCEN PART OF VIK POOL<br>NO.2 |
| 2.00                        | 0.195                   | 0.60                 | 10 100                     | 30             | 0.851                   | 0.58                           | 933.7                         | 1965                 | 1983                     | CWNGNUL PANALTA TCPL  |
| 3.43<br>2.74<br>4.09        | 0.145<br>0.145<br>0.150 | 0.60<br>0.60<br>0.55 | 10 170<br>10 070<br>13 770 | 60<br>66<br>69 | 0.847<br>0.862<br>0.854 | 0.67<br>0.66<br>0.63           | 1 721.6<br>1 784.4<br>1 920.3 | 1957<br>1967<br>1957 | 1985<br>1985<br>1985     | A&S MATERIAL BALANCE<br>A&S MATERIAL BALANCE<br>A&S PANALTA PROGAS NONCOMMERCIAL OIL      |
| 23.75                       | 0.250                   | 0.80                 | 2 420                      | 20             | 0.948                   | 0.56                           | 548.6                         | 1965                 | 1983                     | PANALTA BER   |
| 4.56                        | 0.245                   | 0.65                 | 3 020                      | 22             | 0.944                   | 0.57                           | 627.7                         | 1981                 | 1985                     | CWNGNUL KANNGAZ   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE         | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>GALAHAD 040-15W4</b><br>TOTAL-GALAHAD             | 765   |                          |                         | 505  |   | 505  |   | 18 998                               |        |
| <b>GALLOWAY 053-20W5</b><br>TOTAL-GALLOWAY           | 2 003   |                          |                         | 811  | 80  | 731  |   | 28 964                               |        |
| <b>GAMBLER 070-21W4</b><br>TOTAL-GAMBLER             | 957   |                          |                         | 569  | 123   | 446  |   | 16 643                               |        |
| <b>GARDEN PLAINS 033-13W4</b><br>TOTAL-GARDEN PLAINS | 515   |                          |                         | 346  | 136   | 210  |   | 8 022                                |        |
| <b>GARRINGTON 034-04W5</b>                           |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM A & B SOLN                                   | 5 600   | 0.10                     | 0.45                    | 308  |   |  | 38  |                                      |        |
| CARDIUM A & B TOTAL                                  | 5 600   | 0.10                     | 0.45                    | 308  | 54  | 254  | 38  | 9 604                                |        |
| VIKING A ASSOC                                       | 699   | 0.70                     | 0.10                    | 441  |   |  | 40  |                                      | 5 367  |
| VIKING A SOLN  | 599   | 0.65                     | 0.15                    | 331  |   |  | 40  |                                      |        |
| VIKING A ASSOC                                       | 68  | 0.60                     | 0.10                    | 37   |   |  | 40  |                                      | 200    |
| VIKING A ASSOC                                       | 41  | 0.55                     | 0.10                    | 20   |   |  | 40  |                                      | 200    |
| VIKING A ASSOC                                       | 56  | 0.55                     | 0.10                    | 28   |   |  | 40  |                                      | 200    |
| VIKING A ASSOC                                       | 49  | 0.55                     | 0.10                    | 24   |   |  | 40  |                                      | 200    |
| VIKING A TOTAL                                       | 1 512   | 0.65                     | 0.10                    | 881  | 43  | 838  | 40  | 33 881                               |        |
| MANNVILLE B SOLN                                     | 3 742   | 0.80                     | 0.25                    | 2 246  | 1 939   | 307  | 38  | 11 608                               |        |
| MANNVILLE D SOLN                                     | 128   | 0.65                     | 0.45                    | 46 <sup>b</sup>  |   |  | 38  |                                      |        |
| MANNVILLE D ASSOC                                    | 1 044   | 0.80                     | 0.10                    | 752 <sup>b</sup>   | 272 <sup>b</sup>  | 526  | 38  | 19 888                               | 2 991  |
| GLAUCONITIC 33-036-05                                | 450   | 0.80                     | 0.15                    | 306  |   | 306  | 38  | 11 570                               | 200    |
| LOWER MANNVILLE H                                    | 515   | 0.90                     | 0.10                    | 417  | 48  | 369  | 38  | 13 952                               | 1 762  |
| LOWER MANNVILLE FF                                   | 565   | 0.85                     | 0.10                    | 432  | 22  | 410  | 38  | 15 502                               | 200    |
| WABAMUN A SOLN                                       | 1 753   | 0.65                     | 0.33                    | 763 <sup>b</sup>   |   |  | 38 <sup>a</sup>                             |                                      |        |
| WABAMUN A ASSOC                                      | 8 709   | 0.85                     | 0.33                    | 4 960 <sup>b</sup>   | 4 047 <sup>b</sup>  | 1 676  | 38 <sup>a</sup>                             | 63 370                               | 13 888 |
| LEDUC C  | 510   | 0.85                     | 0.25                    | 324  | 3   | 321  | 43  | 13 697                               | 200    |
| OTHER  | 9 642   |                          |                         | 6 721  | 483   | 6 238  |   | 238 558                              |        |
| TOTAL-GARRINGTON                                     | 34 170  |                          |                         | 18 156   | 6 911   | 11 245   |   | 431 630                              |        |
| <b>GARSDN (SA) 083-04W4</b><br>TOTAL-GARSDN          | 104   |                          |                         | 49   |   | 49   |   | 2 109                                |        |
| <b>GARTH 063-06W4</b><br>TOTAL-GARTH                 | 161   |                          |                         | 87   | 7   | 80   |   | 2 995                                |        |
| <b>GARTLEY 031-18W4</b><br>TOTAL-GARTLEY             | 523   |                          |                         | 338  | 40  | 298  |   | 11 377                               |        |
| <b>GATOR 118-03W6</b><br>TOTAL-GATOR                 | 113   |                          |                         | 73   |   | 73   |   | 2 869                                |        |
| <b>GAYFORD 026-25W4</b><br>TOTAL-GAYFORD             | 1 043   |                          |                         | 631  | 198   | 433  |   | 16 241                               |        |
| <b>GEDEON (SA) 055-07W4</b><br>TOTAL-GEDEON          | 66  |                          |                         | 40   |   | 40   |   | 1 497                                |        |
| <b>GENESEE 050-03W5</b><br>TOTAL-GENESEE             | 577   |                          |                         | 407  |   | 407  |   | 15 883                               |        |
| <b>GEORGE 082-05W6</b>                               |   |                          |                         |  |   |  |   |                                      |        |
| KISKATINAW D   | 785   | 0.85                     | 0.10                    | 600  | 271   | 329  | 40  | 13 176                               | 2 317  |
| OTHER  | 930   |                          |                         | 644  | 25  | 619  |   | 23 682                               |        |
| TOTAL-GEORGE   | 1 715   |                          |                         | 1 244  | 296   | 948  |   | 36 858                               |        |
| <b>GERMAIN (SA) 085-22W4</b><br>TOTAL-GERMAIN        | 27  |                          |                         | 12   |   | 12   |   | 440                                  |        |
| <b>GHOST PINE 031-22W4</b>                           |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE D SOLN                               | 20  | 0.65                     | 0.10                    | 12 <sup>b</sup>  |   |  | 42  |                                      |        |
| UPPER MANNVILLE Q ASSOC                              | 3 353   | 0.93                     | 0.05                    | 2 960 <sup>b</sup>   | 310 <sup>b</sup>  | 2 662  | 42  | 112 603                              | 4 254  |
| UPPER MANNVILLE V SOLN                               | 156   | 0.60                     | 0.10                    | 84 <sup>b</sup>  |   |  | 42  |                                      |        |
| UPPER MANNVILLE V ASSOC                              | 296   | 0.80                     | 0.05                    | 225 <sup>b</sup>   | 109 <sup>b</sup>  | 200  | 42  | 8 460                                | 467    |
| UPPER MANNVILLE DD                                   | 1 058   | 0.80                     | 0.10                    | 762  | 303   | 459  | 42  | 19 416                               | 1 932  |
| UPPER MANNVILLE C ASSOC                              | 567   | 0.94                     | 0.05                    | 507 <sup>b</sup>   |   |  | 42  |                                      | 2 736  |
| UPPER MANNVILLE C SOLN                               | 14  | 0.60                     | 0.20                    | 7 <sup>b</sup>   |   |  | 42  |                                      |        |



| 10                          | 11       | 12          | 13                  | 14   | 15      | 16                             | 17                         | 18                       | 19                       | 20  |
|-----------------------------|----------|-------------|---------------------|------|---------|--------------------------------|----------------------------|--------------------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRSS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>LAST<br>REVIEWED | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS                   |
| m                           | frac     | frac        | kPa                 | °C   | frac    | frac                           | m                          | YEAR                     | REVIEWED                 |   |
| 2.58                        | 0.087    | 0.65        | 8 920               | 58   | 0.858   | 0.67                           | 1 993.8                    | 1954                     | 1984                     | A&S PROGAS TCPL PANALTA                   |
| 8.06                        | 0.088    | 0.55        | 8 920               | 63   | 0.864   | 0.67                           | 2 133.3                    | 1954                     | 1984                     |   |
| 4.70                        | 0.090    | 0.65        | 7 660               | 61   | 0.876   | 0.67                           | 2 130.0                    | 1977                     | 1984                     | ASSIGNED WELL 14-32-34-3 WSM              |
| 5.99                        | 0.085    | 0.75        | 7 660               | 65   | 0.883   | 0.67                           | 2 170.9                    | 1977                     | 1984                     | ASSIGNED WELL 06-30-035-03 WSM            |
| 6.57                        | 0.078    | 0.65        | 7 660               | 64   | 0.880   | 0.67                           | 2 149.8                    | 1977                     | 1984                     | ASSIGNED WELL 10-18-035-04 WSM            |
|                             |          |             |                     |      |         |                                |                            | 1977                     | 1984                     | ASSIGNED WELL 01-25-035-04 WSM            |
|                             |          |             |                     |      |         |                                |                            | 1963                     | 1985                     | A&S KANGAZ PROGAS TCPL                    |
|                             |          |             |                     |      |         | 0.72                           |                            | 1968                     | 1985                     | A&S DWNGNUL TCPL                          |
| 1.84                        | 0.109    | 0.75        | 24 600              | 78   | 0.859   | 0.72                           | 2 470.6                    | 1968                     | 1985                     | PANALTA PROGAS TCPL CONCURRENT PRODUCTION |
| 9.75                        | 0.128    | 0.85        | 21 200              | 79   | 0.808   | 0.76                           | 2 525.0                    | 1979                     | 1982                     | PANALTA PROGAS TCPL CONCURRENT PRODUCTION |
| 1.31                        | 0.109    | 0.80        | 27 500              | 72   | 0.886   | 0.69                           | 2 449.3                    | 1974                     | 1982                     | PROGAS                                    |
| 14.63                       | 0.100    | 0.85        | 24 118              | 76   | 0.865   | 0.70                           | 2 563.4                    | 1978                     | 1979                     | PANALTA TCPL                              |
|                             |          |             |                     |      |         | 0.76                           |                            | 1952                     | 1985                     | PANALTA PROGAS TCPL MATERIAL BALANCE      |
| 8.47                        | 0.048    | 0.80        | 24 720              | 74   | 0.838   | 0.76                           | 2 644.4                    | 1952                     | 1985                     | CONCURRENT PRODUCTION                     |
| 26.21                       | 0.048    | 0.85        | 25 510              | 88   | 0.845   | 0.87                           | 3 006.5                    | 1956                     | 1973                     | PANALTA PROGAS TCPL MATERIAL BALANCE      |
|                             |          |             |                     |      |         |                                |                            |                          |                          | CONCURRENT PRODUCTION                     |
|                             |          |             |                     |      |         |                                |                            |                          |                          | TCPL                                      |
| 2.10                        | 0.143    | 0.75        | 14 630              | 61   | 0.828   | 0.65                           | 1 460.8                    | 1973                     | 1982                     | TCPL                                      |
| 5.39                        | 0.207    | 0.65        | 10 340              | 55   | 0.828   | 0.67                           | 1 456.2                    | 1954                     | 1984                     | TCPL CONCURRENT PRODUCTION                |
| 3.64                        | 0.214    | 0.75        | 10 410              | 55   | 0.831   | 0.68                           | 1 488.6                    | 1956                     | 1984                     | TCPL CONCURRENT PRODUCTION                |
| 3.89                        | 0.188    | 0.70        | 10 320              | 57   | 0.830   | 0.60                           | 1 494.2                    | 1956                     | 1978                     | TCPL CONCURRENT PRODUCTION OIL DEPLETED   |
| 1.66                        | 0.178    | 0.55        | 10 550              | 52   | 0.818   | 0.69                           | 1 389.9                    | 1967                     | 1980                     | TCPL CONCURRENT PRODUCTION OIL DEPLETED   |
|                             |          |             |                     |      |         | 0.69                           |                            | 1962                     | 1981                     | TCPL                                      |
|                             |          |             |                     |      |         |                                |                            | 1962                     | 1981                     | CONCURRENT PRODUCTION OIL DEPLETED        |
|                             |          |             |                     |      |         |                                |                            |                          |                          | CONCURRENT PRODUCTION OIL DEPLETED        |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>FRAC | SURFACE<br>LOSS<br>FRAC | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>GHOST PINE 031-22W4<br/>(CONTINUED)</b>   |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE G                            | 631   | 0.94                     | 0.05                    | 564b   |   |  | 42  |                                      | 4 753  |
| UPPER MANNVILLE H                            | 1 198   | 0.94                     | 0.05                    | 1 070b   |   |  | 42  |                                      | 3 652  |
| UPPER MANNVILLE P ASSOC                      | 1 799   | 0.94                     | 0.05                    | 1 604b   |   |  | 42  |                                      | 7 202  |
| UPPER MANNVILLE U                            | 854   | 0.94                     | 0.05                    | 764b   |   |  | 42  |                                      | 954    |
| U MANN C, G, H, P & U TOTAL                  | 5 063   | 0.95                     | 0.05                    | 4 516b   | 3 811b  | 705  | 42  | 29 822                               |        |
| UPPER MANNVILLE Y                            | 978   | 0.90                     | 0.10                    | 792  |   |  | 42  |                                      | 3 333  |
| UPPER MANNVILLE FF                           | 1 286   | 0.95                     | 0.05                    | 1 160  |   |  | 42  |                                      | 3 881  |
| U MANN Y & FF TOTAL                          | 2 264   | 0.95                     | 0.05                    | 1 952  | 1 949   | 3  | 42  | 127                                  |        |
| LOWER MANNVILLE F                            | 551   | 0.90                     | 0.10                    | 446  | 403   | 43   | 42  | 1 819                                | 783    |
| PEKISKO G                                    | 772   | 0.92                     | 0.04                    | 682  | 546   | 136  | 40  | 5 447                                | 200    |
| OTHER  | 6 433   |                          |                         | 4 354  | 1 683   | 2 671  |   | 110 776                              |        |
| TOTAL-GHOST PINE                             | 19 966  |                          |                         | 15 993   | 9 114   | 6 879  |   | 288 470                              |        |
| <b>GIBOS (SA) 075-02W6</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-GIBOS                                  | 16  |                          |                         | 11   |   | 11   |   | 412                                  |        |
| <b>GILBY 041-03W5</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM C                                    | 613   | 0.85                     | 0.15                    | 442  |   | 442  | 37  | 16 544                               | 2 882  |
| GLAUCONITIC SS 34-040-04                     | 529   | 0.80                     | 0.15                    | 360  |   | 360  | 41  | 14 825                               | 150    |
| BASAL MANNVILLE D                            | 1 457   | 0.91                     | 0.15                    | 1 130  | 890   | 240  | 40a   | 9 703                                | 1 150  |
| BASAL MANNVILLE A                            |   | 0.85                     | 0.15                    |  |   |  | 40a   |                                      | 2 369  |
| JURASSIC D                                   |   | 0.85                     | 0.15                    |  |   |  | 40a   |                                      | 861    |
| BSL MANN A & JUR D TOTAL                     | 9 346   | 0.85                     | 0.15                    | 6 750  | 3 645   | 3 105  | 40a   | 125 535                              |        |
| BASAL MANNVILLE H                            | 1 755   | 0.91                     | 0.10                    | 1 440b   |   |  | 40a   |                                      | 2 800  |
| BASAL MANNVILLE L ASSOC                      | 72  | 0.70                     | 0.15                    | 43b  |   |  | 40a   |                                      | 200    |
| JURASSIC-RUNDLE ASSOC                        | 9 410   | 0.92                     | 0.08                    | 8 000b   |   |  | 40a   |                                      | 5 764  |
| JURASSIC-RUNDLE SOLN                         | 111   | 0.60                     | 0.10                    | 60b  |   |  | 40a   |                                      |        |
| BMN H&L, J-RUN&UMN A TOTAL                   | 11 348  | 0.90                     | 0.10                    | 9 543b   | 7 499b  | 2 044  | 40a   | 82 639                               |        |
| JURASSIC B SOLN                              | 1 049   | 0.30                     | 0.20                    | 252b   |   |  | 40  |                                      |        |
| JURASSIC B ASSOC                             | 493   | 0.80                     | 0.20                    | 316b   | 338b  | 230  | 40  | 9 299                                | 494    |
| JURASSIC-RUNDLE C                            | 10 143  | 0.94                     | 0.10                    | 9 020  | 7 507   | 1 513  | 40  | 61 171                               | 3 668  |
| RUNDLE G                                     | 613   | 0.85                     | 0.15                    | 443  |   | 443  | 40  | 17 910                               | 1 125  |
| RUNDLE H                                     | 997   | 0.85                     | 0.15                    | 720  |   | 720  | 40a   | 29 110                               | 1 428  |
| OTHER  | 7 102   |                          |                         | 4 136  | 871   | 3 265  |   | 132 624                              |        |
| TOTAL-GILBY                                  | 43 690  |                          |                         | 33 112   | 20 750  | 12 362   |   | 499 360                              |        |
| <b>GILWOOD 073-18W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-GILWOOD                                | 605   |                          |                         | 392  | 42  | 350  |   | 13 558                               |        |
| <b>GIROUX LAKE 066-21W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-GIROUX LAKE                            | 792   |                          |                         | 513  | 22  | 491  |   | 19 180                               |        |
| <b>GIROUXVILLE (SA) 077-23W5</b>             |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-GIROUXVILLE                            | 59  |                          |                         | 42   |   | 42   |   | 1 682                                |        |
| <b>GIROUXVILLE EAST 077-22W5</b>             |   |                          |                         |  |   |  |   |                                      |        |
| GETHING A                                    | 742   | 0.80                     | 0.05                    | 564  | 11  | 553  | 40  | 22 148                               | 1 658  |
| OTHER  | 776   |                          |                         | 543  | 36  | 507  |   | 20 284                               |        |
| TOTAL-GIROUXVILLE EAST                       | 1 518   |                          |                         | 1 107  | 47  | 1 060  |   | 42 432                               |        |
| <b>GLACIER 077-12W6</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-GLACIER                                | 671   |                          |                         | 480  |   | 480  |   | 18 671                               |        |
| <b>GLADYS 020-27W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| WABAMUN A                                    | 1 500   | 0.50                     | 0.20                    | 600  |   | 600  | 39  | 23 580                               | 2 914  |
| OTHER  | 929   |                          |                         | 547  | 38  | 509  |   | 19 725                               |        |
| TOTAL-GLADYS                                 | 2 429   |                          |                         | 1 147  | 38  | 1 109  |   | 43 305                               |        |
| <b>GLEICHEN 022-22W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| MEDICINE HAT A                               | 663   | 0.70                     | 0.03                    | 450  |   |  | 36a   |                                      | 14 184 |
| SE ALTA GAS SYS (MU) TOTAL                   | 663   | 0.70                     | 0.05                    | 450  | 55  | 395  | 36a   | 14 342                               |        |
| GLAUCONITIC U                                | 525   | 0.80                     | 0.10                    | 378  | 89  | 289  | 39  | 11 144                               | 1 986  |
| OTHER  | 471   |                          |                         | 371  | 18  | 353  |   | 13 453                               |        |
| TOTAL-GLEICHEN                               | 1 659   |                          |                         | 1 199  | 162   | 1 037  |   | 38 939                               |        |
| <b>GLEN PARK 049-27W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-GLEN PARK                              | 1 013   |                          |                         | 650  | 269   | 381  |   | 16 437                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18            | 19                      | 20                                      |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|---------------|-------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>FILED | SATI<br>LAST<br>REVISED | REMARKS AND COMMENTS                    |
| m                           | frac     | frac        | kpa                 | °C   | frac     | frac                           | m                          |               |                         |   |
| 0.84                        | 0.198    | 0.65        | 10 480              | 52   | 0.824    | 0.67                           | 1 412.7                    | 1955          | 1975                    |   |
| 2.23                        | 0.198    | 0.65        | 10 450              | 46   | 0.815    | 0.67                           | 1 363.5                    | 1952          | 1981                    |   |
| 1.54                        | 0.207    | 0.70        | 10 480              | 52   | 0.825    | 0.67                           | 1 410.9                    | 1955          | 1975                    |   |
| 5.92                        | 0.203    | 0.65        | 10 690              | 55   | 0.822    | 0.68                           | 1 415.5                    | 1954          | 1975                    |   |
|                             |          |             |                     |      |          |                                |                            | 1955          | 1981                    | TCPL CONCURRENT PRODUCTION OIL DEPLETED |
| 2.11                        | 0.198    | 0.65        | 10 450              | 56   | 0.836    | 0.68                           | 1 532.6                    | 1968          | 1982                    |   |
| 2.72                        | 0.200    | 0.55        | 10 480              | 55   | 0.830    | 0.69                           | 1 480.1                    | 1961          | 1978                    |   |
|                             |          |             |                     |      |          |                                |                            | 1961          | 1982                    | TCPL                                    |
| 5.34                        | 0.200    | 0.55        | 10 650              | 52   | 0.824    | 0.68                           | 1 471.0                    | 1960          | 1981                    | TCPL PRODUCTION DECLINE                 |
| 4.32                        | 0.045    | 0.75        | 10 580              | 48   | 0.782    | 0.73                           | 1 383.2                    | 1962          | 1981                    | TCPL PRODUCTION DECLINE                 |
|                             |          |             |                     |      |          |                                |                            |               |                         |   |
| 1.01                        | 0.096    | 0.85        | 19 380              | 48   | 0.758    | 0.72                           | 1 774.8                    | 1963          | 1982                    |   |
| 9.40                        | 0.270    | 0.85        | 15 860              | 70   | 0.805    | 0.73                           | 2 118.2                    | 1977          | 1985                    |   |
| 7.80                        | 0.107    | 0.70        | 15 510              | 70   | 0.826    | 0.70                           | 2 045.5                    | 1962          | 1982                    | KANNGAZ TCPL MATERIAL BALANCE           |
| 12.65                       | 0.137    | 0.70        | 15 930              | 70   | 0.815    | 0.70                           | 2 151.3                    | 1956          | 1981                    | MATERIAL BALANCE                        |
| 5.48                        | 0.169    | 0.75        | 15 960              | 69   | 0.814    | 0.70                           | 2 173.8                    | 1956          | 1982                    | MATERIAL BALANCE                        |
|                             |          |             |                     |      |          |                                |                            | 1956          | 1981                    | TCPL                                    |
| 4.91                        | 0.120    | 0.65        | 15 870              | 70   | 0.805    | 0.70                           | 2 112.9                    | 1956          | 1973                    | MATERIAL BALANCE                        |
| 1.10                        | 0.120    | 0.70        | 15 310              | 73   | 0.810    | 0.72                           | 2 045.8                    | 1959          | 1982                    | MATERIAL BALANCE                        |
| 5.18                        | 0.133    | 0.65        | 16 060              | 71   | 0.827    | 0.71                           | 2 084.5                    | 1953          | 1984                    | MATERIAL BALANCE CONCURRENT PRODUCTION  |
|                             |          |             |                     |      |          | 0.71                           |                            | 1953          | 1984                    | MATERIAL BALANCE CONCURRENT PRODUCTION  |
|                             |          |             |                     |      |          | 0.73                           |                            | 1958          | 1985                    | A&S TCPL CONCURRENT PRODUCTION          |
|                             |          |             |                     |      |          |                                |                            |               |                         | A&S TCPL CONCURRENT PRODUCTION OIL      |
| 4.94                        | 0.159    | 0.80        | 15 890              | 71   | 0.824    | 0.73                           | 2 133.0                    | 1958          | 1985                    | DEPLETED                                |
|                             |          |             |                     |      |          |                                |                            |               |                         | A&S TCPL CONCURRENT PRODUCTION OIL      |
| 16.68                       | 0.130    | 0.75        | 15 750              | 71   | 0.818    | 0.70                           | 2 133.6                    | 1955          | 1982                    | DEPLETED                                |
| 5.80                        | 0.073    | 0.75        | 17 600              | 77   | 0.833    | 0.69                           | 2 195.9                    | 1961          | 1982                    | TCPL MATERIAL BALANCE                   |
| 6.45                        | 0.087    | 0.70        | 17 980              | 77   | 0.822    | 0.74                           | 2 231.0                    | 1963          | 1985                    | PROGAS TCPL                             |
|                             |          |             |                     |      |          |                                |                            |               |                         | KANNGAZ PROGAS TCPL                     |
|                             |          |             |                     |      |          |                                |                            |               |                         |   |
| 3.85                        | 0.207    | 0.65        | 8 230               | 37   | 0.874    | 0.59                           | 858.4                      | 1980          | 1984                    |   |
|                             |          |             |                     |      |          |                                |                            |               |                         |   |
| 5.10                        | 0.051    | 0.85        | 22 900              | 66   | 0.825    | 0.76                           | 2 517.7                    | 1961          | 1981                    | PANALTA TCPL                            |
|                             |          |             |                     |      |          |                                |                            |               |                         |   |
| 1.08                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904          | 1982                    | PART OF MED HAT POOL NO.1               |
| 1.55                        | 0.191    | 0.75        | 10 830              | 43   | 0.818    | 0.66                           | 1 354.6                    | 1904          | 1982                    | PANALTA PROGAS TCPL                     |
|                             |          |             |                     |      |          |                                |                            | 1963          | 1985                    |   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE    | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>GLENDON 058-08W4</b><br>TOTAL-GLENDON        | 432   |                          |                         | 270  | 6   | 264  |   | 9 882                                |       |
| <b>GLENEVIS 055-04W5</b><br>TOTAL-GLENEVIS      | 780   |                          |                         | 553  | 33  | 520  |   | 20 307                               |       |
| <b>GLOVER 075-09W4</b><br>TOTAL-GLOVER          | 89  |                          |                         | 46   |   | 46   |   | 1 739                                |       |
| <b>GODIN 081-01W5</b><br>TOTAL-GODIN            | 374   |                          |                         | 183  |   | 183  |   | 6 847                                |       |
| <b>GOLD CREEK 067-05W6</b><br>BLUESKY-GETHING A | 1 544   | 0.75                     | 0.05                    | 1 100  | 1 042   | 58   | 42  | 2 453                                | 7 673 |
| CADDMIN B                                       | 699   | 0.70                     | 0.10                    | 440  | 175   | 265  | 42a   | 11 011                               | 812   |
| WABAMUN A                                       | 4 104   | 0.45                     | 0.30                    | 1 290  | 704   | 586  | 39a   | 22 813                               | 1 230 |
| WABAMUN B                                       | 1 189   | 0.65                     | 0.15                    | 657  |   | 657  | 39a   | 25 577                               | 200   |
| WABAMUN 34-069-05                               | 1 020   | 0.75                     | 0.15                    | 650  |   | 650  | 39  | 25 305                               | 400   |
| WABAMUN 34-069-05                               | 517   | 0.70                     | 0.15                    | 308  |   | 308  | 39  | 11 990                               | 200   |
| OTHER   | 2 120   |                          |                         | 1 418  | 138   | 1 280  |   | 51 832                               |       |
| TOTAL-GOLD CREEK                                | 11 193  |                          |                         | 5 863  | 2 059   | 3 804  |   | 150 981                              |       |
| <b>GOLDEN 086-15W5</b><br>TOTAL-GOLDEN          | 26  |                          |                         | 18   |   | 18   |   | 891                                  |       |
| <b>GOLDEN SPIKE 051-27W4</b><br>BLAIRMORE A     | 89  | 0.90                     | 0.05                    | 76   |   |  | 39  |                                      | 366   |
| BLAIRMORE A                                     | 80  | 0.90                     | 0.05                    | 68   |   |  | 39  |                                      | 256   |
| BLAIRMORE A                                     | 188   | 0.90                     | 0.05                    | 161  |   |  | 39  |                                      | 415   |
| BLAIRMORE A                                     | 15  | 0.90                     | 0.05                    | 13   |   |  | 39  |                                      | 66    |
| BLAIRMORE A                                     | 9   | 0.90                     | 0.05                    | 8  |   |  | 39  |                                      | 49    |
| BLAIRMORE A                                     | 6   | 0.90                     | 0.05                    | 5  |   |  | 39  |                                      | 25    |
| BLAIRMORE A                                     | 16  | 0.90                     | 0.05                    | 14   |   |  | 39  |                                      | 49    |
| BLAIRMORE A                                     | 4   | 0.90                     | 0.05                    | 3  |   |  | 39  |                                      | 25    |
| BLAIRMORE A                                     | 18  | 0.90                     | 0.05                    | 15   |   |  | 39  |                                      | 16    |
| BLAIRMORE A TOTAL                               | 425   | 0.90                     | 0.05                    | 363  | 319   | 44   | 39  | 1 729                                |       |
| D-1 A   | 921   | 0.85                     | 0.10                    | 704  | 420   | 284  | 40  | 11 269                               | 438   |
| D-3 A SOLN                                      | 5 046   | 0.67                     | 0.40                    | 2 030b   |   |  | 42a   |                                      |       |
| D-3 A ASSOC                                     |   | 0.90                     | 0.10                    |  | 1 350b  | 680  | 42a   | 28 764                               |       |
| OTHER   | 1 193   |                          |                         | 716  | 122   | 594  |   | 23 707                               |       |
| TOTAL-GOLDEN SPIKE                              | 7 585   |                          |                         | 3 813  | 2 211   | 1 602  |   | 65 469                               |       |
| <b>GOODFISH (SA) 091-09W5</b><br>TOTAL-GOODFISH | 106   |                          |                         | 65   |   | 65   |   | 2 554                                |       |
| <b>GOODRIDGE 061-02W5</b><br>TOTAL-GOODRIDGE    | 605   |                          |                         | 402  | 27  | 375  |   | 15 582                               |       |
| <b>GOODWIN 059-13W5</b><br>JURASSIC A           | 708   | 0.80                     | 0.10                    | 510  |   | 510  | 40  | 20 426                               | 1 289 |
| OTHER   | 59  |                          |                         | 37   | 15  | 22   |   | 881                                  |       |
| TOTAL-GOODWIN                                   | 767   |                          |                         | 547  | 15  | 532  |   | 21 307                               |       |
| <b>GOOSE RIVER 067-18W5</b><br>VIKING A         | 472   | 0.85                     | 0.05                    | 381  | 3   | 378  | 42  | 15 706                               | 1 949 |
| BEAVERHILL LAKE A SOLN                          | 2 198   | 0.34                     | 0.40                    | 448  | 315   | 133  | 37  | 4 978                                |       |
| TOTAL-GOOSE RIVER                               | 2 670   |                          |                         | 829  | 318   | 511  |   | 20 684                               |       |
| <b>GOPHER (SA) 081-19W4</b><br>TOTAL-GOPHER     | 39  |                          |                         | 19   |   | 19   |   | 711                                  |       |
| <b>GORDONDALE 079-10W6</b><br>PEACE RIVER       | 989   | 0.85                     | 0.05                    | 798  |   |  | 37  |                                      | 3 717 |
| NOTIKEWIN B                                     | 100   | 0.75                     | 0.05                    | 72   |   |  | 37  |                                      | 200   |
| GETHING A                                       | 811   | 0.75                     | 0.03                    | 592  |   |  | 37  |                                      | 3 176 |
| PEACE RIV, NOT B&GET A TOTAL                    | 1 900   | 0.80                     | 0.05                    | 1 462  | 1 408   | 54   | 37  | 2 021                                |       |
| GETHING B                                       | 487   | 0.85                     | 0.05                    | 393  | 327   | 66   | 38  | 2 520                                | 200   |
| OTHER   | 2 274   |                          |                         | 1 574  | 193   | 1 381  |   | 51 821                               |       |
| TOTAL-GORDONDALE                                | 4 661   |                          |                         | 3 429  | 1 928   | 1 501  |   | 56 362                               |       |
| <b>GRAHAM 079-04W4</b><br>MCMURRAY B            | 1 029   | 0.55                     | 0.05                    | 538  | 80  | 458  | 43  | 19 717                               | 4 143 |
| OTHER   | 529   |                          |                         | 252  | 42  | 210  |   | 8 905                                |       |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20                                  |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|-------------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DEFINITION AND REMARKS              |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |                                     |
| 2.32                        | 0.109    | 0.60        | 22 100              | 70   | 0.831    | 0.70                           | 2 126.0                    | 1964         | 1983                     | A&S PROGAS TCPL MATERIAL BALANCE    |
| 6.69                        | 0.090    | 0.70        | 19 750              | 64   | 0.820    | 0.69                           | 2 105.9                    | 1966         | 1975                     | A&S                                 |
| 17.47                       | 0.069    | 0.85        | 35 510              | 101  | 0.950    | 0.75                           | 3 344.6                    | 1964         | 1981                     | A&S MATERIAL BALANCE                |
| 37.62                       | 0.068    | 0.85        | 35 510              | 101  | 0.988    | 0.82                           | 3 494.2                    | 1964         | 1981                     | A&S                                 |
| 12.05                       | 0.101    | 0.85        | 33 870              | 110  | 1.020    | 0.69                           | 3 188.8                    | 1980         | 1982                     | PROGAS                              |
| 12.00                       | 0.100    | 0.85        | 34 180              | 111  | 0.998    | 0.70                           | 3 233.3                    | 1980         | 1982                     | PROGAS                              |
| 2.23                        | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 324.1                    | 1949         | 1982                     | PRODUCTION DECLINE                  |
| 2.87                        | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 533.1                    | 1949         | 1982                     | PRODUCTION DECLINE                  |
| 4.16                        | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 325.6                    | 1949         | 1982                     | PRODUCTION DECLINE                  |
| 2.10                        | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 318.0                    | 1949         | 1982                     | PRODUCTION DECLINE                  |
| 1.77                        | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 313.4                    | 1949         | 1982                     |                                     |
| 2.13                        | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 323.1                    | 1949         | 1982                     | PRODUCTION DECLINE                  |
| 3.05                        | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 331.4                    | 1949         | 1982                     | PRODUCTION DECLINE                  |
| 1.52                        | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 333.5                    | 1949         | 1982                     | PRODUCTION DECLINE                  |
| 10.06                       | 0.170    | 0.60        | 10 070              | 52   | 0.827    | 0.68                           | 1 346.3                    | 1949         | 1982                     | PRODUCTION DECLINE                  |
| 6.15                        | 0.090    | 0.80        | 10 890              | 53   | 0.825    | 0.67                           | 1 384.7                    | 1949         | 1970                     | PANALTA MATERIAL BALANCE            |
|                             |          |             |                     |      |          |                                |                            | 1949         | 1977                     | CONCUR PROD SEC GAS CAP GAS CYCLING |
|                             |          |             |                     |      |          |                                |                            | 1949         | 1977                     | CONCUR PROD SEC GAS CAP GAS CYCLING |
| 4.99                        | 0.200    | 0.40        | 14 030              | 69   | 0.850    | 0.66                           | 1 784.0                    | 1956         | 1975                     | TCPL                                |
| 1.97                        | 0.200    | 0.65        | 9 460               | 53   | 0.874    | 0.62                           | 1 210.1                    | 1964         | 1978                     | PANALTA                             |
|                             |          |             |                     |      |          |                                |                            | 1963         | 1985                     | TCPL                                |
| 4.48                        | 0.190    | 0.70        | 4 300               | 33   | 0.930    | 0.57                           | 841.9                      | 1952         | 1974                     | MATERIAL BALANCE                    |
| 7.40                        | 0.145    | 0.65        | 7 240               | 44   | 0.905    | 0.59                           | 959.2                      | 1957         | 1982                     |                                     |
| 3.38                        | 0.120    | 0.70        | 10 150              | 42   | 0.850    | 0.59                           | 1 291.7                    | 1953         | 1971                     | MATERIAL BALANCE                    |
| 9.87                        | 0.120    | 0.70        | 12 470              | 43   | 0.830    | 0.60                           | 1 325.6                    | 1952         | 1974                     | DOMEDOW PANALTA PROGAS WDCAST       |
|                             |          |             |                     |      |          |                                |                            | 1957         | 1982                     | WDCAST MATERIAL BALANCE             |
| 7.42                        | 0.300    | 0.60        | 1 810               | 15   | 0.961    | 0.56                           | 235.3                      | 1976         | 1984                     | PANALTA TCPL                        |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE             | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>GRAHAM 079-04W4 (CONTINUED)</b><br>TOTAL-GRAHAM       | 1 558   |                          |                         | 790  | 122   | 668  |   | 28 622                               |        |
| <b>GRAINDALE 026-02W4</b><br>TOTAL-GRAINDALE             | 734   |                          |                         | 520  | 13  | 507  |   | 21 598                               |        |
| <b>GRAND FORKS 011-13W4</b><br>TOTAL-GRAND FORKS         | 503   |                          |                         | 347  |   | 347  |   | 12 662                               |        |
| <b>GRANDE CACHE (SA) 059-08W6</b><br>TOTAL-GRANDE CACHE  | 197   |                          |                         | 151  |   | 151  |   | 5 652                                |        |
| <b>GRANDE PRAIRIE 071-06W6</b><br>TOTAL-GRANDE PRAIRIE   | 1 371   |                          |                         | 952  | 1   | 951  |   | 36 444                               |        |
| <b>GRANLEA 008-10W4</b><br>BOW ISLAND A                  | 1 128   | 0.90                     | 0.05                    | 965  | 549   | 416  | 36  | 14 793                               | 6 397  |
| OTHER  | 324   |                          |                         | 237  | 49  | 188  |   | 6 802                                |        |
| TOTAL-GRANLEA  | 1 452   |                          |                         | 1 202  | 598   | 604  |   | 21 595                               |        |
| <b>GRANDR 083-18W4</b><br>GROSMONT A                     | 1 293   | 0.40                     | 0.05                    | 491  | 184   | 307  | 41  | 12 642                               | 20 233 |
| OTHER  | 115   |                          |                         | 56   |   | 56   |   | 2 108                                |        |
| TOTAL-GRANDR   | 1 408   |                          |                         | 547  | 184   | 363  |   | 14 750                               |        |
| <b>GRANUM 011-26W4</b><br>BOW ISLAND A                   | 540   | 0.65                     | 0.10                    | 316  | 23  | 293  | 37  | 10 967                               | 2 407  |
| TOTAL-GRANUM   | 540   |                          |                         | 316  | 23  | 293  |   | 10 967                               |        |
| <b>GRASSLAND 067-19W4</b><br>WABAMUN-WINTERBURN A        | 637   | 0.70                     | 0.05                    | 423  | 88  | 335  | 37  | 12 415                               | 3 129  |
| OTHER  | 1 117   |                          |                         | 695  | 242   | 453  |   | 17 159                               |        |
| TOTAL-GRASSLAND  | 1 754   |                          |                         | 1 118  | 330   | 788  |   | 29 574                               |        |
| <b>GRASSY (SA) 067-21W5</b><br>TOTAL-GRASSY              | 26  |                          |                         | 19   |   | 19   |   | 711                                  |        |
| <b>GREENCOURT 059-09W5</b><br>JURASSIC B                 | 548   | 0.85                     | 0.10                    | 420  | 1   | 419  | 40  | 16 781                               | 2 214  |
| JURASSIC A   | 2 750   | 0.80                     | 0.10                    | 1 980 <sup>b</sup>   |   |  | 40  |                                      | 5 480  |
| PEKISKO A ASSDC  | 2 787   | 0.55                     | 0.10                    | 1 380 <sup>b</sup>   |   |  | 42  |                                      | 2 643  |
| PEKISKO A SOLN   | 123   | 0.60                     | 0.15                    | 63 <sup>b</sup>  |   |  | 42  |                                      |        |
| JURASSIC A&PEKISKO A TOTAL                               | 5 660   | 0.65                     | 0.10                    | 3 423 <sup>b</sup>   | 2 840 <sup>b</sup>  | 583  | 42  | 24 661                               |        |
| OTHER  | 620   |                          |                         | 442  | 139   | 303  |   | 12 754                               |        |
| TOTAL-GREENCOURT   | 6 828   |                          |                         | 4 285  | 2 980   | 1 305  |   | 54 196                               |        |
| <b>GREENCOURT EAST 059-06W5</b><br>TOTAL-GREENCOURT EAST | 590   |                          |                         | 388  | 1   | 387  |   | 15 729                               |        |
| <b>GREGG (SA) 049-25W5</b><br>TOTAL-GREGG                | 136   |                          |                         | 92   |   | 92   |   | 3 444                                |        |
| <b>GREY (SA) 045-19W5</b><br>TOTAL-GREY                  | 183   |                          |                         | 130  |   | 130  |   | 5 061                                |        |
| <b>GRIMSHAW 083-23W5</b><br>TOTAL-GRIMSHAW               | 256   |                          |                         | 182  | 3   | 179  |   | 6 813                                |        |
| <b>GRIST 073-09W4</b><br>GRAND RAPIDS A                  | 786   | 0.55                     | 0.05                    | 411  |   | 411  | 38  | 15 540                               | 9 853  |
| OTHER  | 16  |                          |                         | 10   |   | 10   |   | 375                                  |        |
| TOTAL-GRIST  | 802   |                          |                         | 421  |   | 421  |   | 15 915                               |        |
| <b>GRIZZLY 062-22W5</b><br>TOTAL-GRIZZLY                 | 717   |                          |                         | 535  | 93  | 442  |   | 18 201                               |        |
| <b>GROAT 057-16W5</b><br>LEDUC 36-056-17                 | 948   | 0.85                     | 0.30                    | 564  |   | 564  | 37  | 21 111                               | 150    |
| OTHER  | 468   |                          |                         | 320  |   | 320  |   | 12 546                               |        |
| TOTAL-GROAT  | 1 416   |                          |                         | 884  |   | 884  |   | 33 657                               |        |
| <b>GROUARD (SA) 075-15W5</b><br>TOTAL-GROUARD            | 96  |                          |                         | 63   |   | 63   |   | 2 358                                |        |



| 10                          | 11                      | 12                   | 13                         | 14             | 15                      | 16                             | 17                            | 18                   | 19                       | 20  |
|-----------------------------|-------------------------|----------------------|----------------------------|----------------|-------------------------|--------------------------------|-------------------------------|----------------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE        | TEMP           | COMPRESS                | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH    | DISC<br>YEAR         | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS   |
| m                           | frac                    | frac                 | kPa                        | °C             | frac                    | frac                           | m                             |                      |                          |   |
| 2.39                        | 0.202                   | 0.60                 | 5 650                      | 24             | 0.888                   | 0.59                           | 684.8                         | 1971                 | 1983                     | CWNGNUL PANALTA   |
| 14.66                       | 0.173                   | 0.20                 | 1 250                      | 17             | 0.973                   | 0.57                           | 316.1                         | 1976                 | 1985                     | PANALTA   |
| 5.13                        | 0.120                   | 0.65                 | 5 850                      | 47             | 0.926                   | 0.58                           | 1 667.3                       | 1971                 | 1983                     | CWNGNUL   |
| 4.15                        | 0.250                   | 0.65                 | 3 030                      | 29             | 0.950                   | 0.57                           | 546.2                         | 1958                 | 1976                     | PANALTA TCPL  |
| 3.86<br>6.23<br>10.77       | 0.090<br>0.128<br>0.117 | 0.60<br>0.50<br>0.75 | 11 030<br>11 680<br>11 210 | 60<br>60<br>63 | 0.833<br>0.841<br>0.850 | 0.69<br>0.67<br>0.66           | 1 472.2<br>1 439.5<br>1 455.4 | 1967<br>1961<br>1961 | 1980<br>1985<br>1985     | DOMEDOW CWNGNUL TCPL<br>PRODUCTION DECLINE<br>PRODUCTION DECLINE CONCURRENT PRODUCTION<br>PRODUCTION DECLINE CONCURRENT PRODUCTION<br>CONCURRENT PRODUCTION |
| 2.53                        | 0.305                   | 0.65                 | 1 580                      | 19             | 0.967                   | 0.58                           | 328.0                         | 1979                 | 1983                     |   |
| 28.20                       | 0.110                   | 0.90                 | 26 910                     | 102            | 0.901                   | 0.78                           | 3 059.4                       | 1984                 | 1985                     |   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE   | 1   | 2  | 3  | 4  | 5   | 6  | 7   | 8   | 9  |
|--|---|--|--|--|---|--|---|---|--|
|  | RAW GAS   |  |  | MARKETABLE GAS   |   |  |   |   | AREA                                       |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac                     | SURFACE<br>LOSS<br>frac                      | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ  |  |
| <b>GROUSE 074-12W4</b><br>TOTAL-GROUSE   | 255   |  |  | 127  |   | 127  |   | 4 777   |  |
| <b>GROVEDALE (SA) 070-06W6</b><br>TOTAL-GROVEDALE  | 248   |  |  | 178  |   | 178  |   | 6 663   |  |
| <b>GUNN 055-03W5</b><br>TOTAL-GUNN   | 406   |  |  | 275  | 64  | 211  |   | 8 599   |  |
| <b>GUTAH 099-07W6</b><br>TOTAL-GUTAH   | 47  |  |  | 31   |   | 31   |   | 1 277   |  |
| <b>HABAY (SA) 088-06W6</b><br>TOTAL-HABAY  | 35  |  |  | 19   |   | 19   |   | 782   |  |
| <b>HACKETT 035-17W4</b><br>LOWER MANNVILLE A<br>OTHER<br>TOTAL-HACKETT   | 750<br>1 130<br>1 880   | 0.80   | 0.09   | 546<br>736<br>1 282  | 533<br>199<br>732   | 13<br>537<br>550   | 41  | 535<br>21 955<br>22 490   | 977  |
| <b>HADDOCK (SA) 056-16W5</b><br>TOTAL-HADDOCK  | 155   |  |  | 99   |   | 99   |   | 4 000   |  |
| <b>HAIRY HILL 055-14W4</b><br>VIKING A<br>COLONY W<br>COLONY X<br>D-2 B<br>CAMROSE A<br>OTHER<br>TOTAL-HAIRY HILL  | 776<br>1 900<br>954<br>507<br>682<br>3 192<br>8 011             | 0.80<br>0.72<br>0.65<br>0.75<br>0.85         | 0.05<br>0.05<br>0.05<br>0.05                 | 590<br>1 300<br>589<br>361<br>551<br>2 061<br>5 452                  | 215<br>1 081<br>454<br>289<br>493<br>724<br>3 256                 | 375<br>219<br>135<br>72<br>58<br>1 337<br>2 196                        | 37<br>37a<br>38a<br>37<br>37                | 13 755<br>8 193<br>5 110<br>2 695<br>2 171<br>49 945<br>81 869                | 17 972<br>1 781<br>1 941<br>1 296<br>4 004 |
| <b>HALKIRK 038-16W4</b><br>TOTAL-HALKIRK   | 1 077   |  |  | 677  | 143   | 534  |   | 22 220  |  |
| <b>HALKIRK EAST 040-14W4</b><br>TOTAL-HALKIRK EAST   | 661   |  |  | 440  |   | 440  |   | 16 469  |  |
| <b>HALLIDAY 028-14W4</b><br>TOTAL-HALLIDAY   | 72  |  |  | 52   | 16  | 36   |   | 1 402   |  |
| <b>HAMBURG (SA) 095-11W6</b><br>SLAVE POINT 096-11<br>TOTAL-HAMBURG  | 1 805<br>1 805  | 0.80   | 0.10   | 1 300<br>1 300   |   | 1 300<br>1 300   | 37  | 48 659<br>48 659  | 1 157                                      |
| <b>HAMELIN CREEK 080-06W6</b><br>TOTAL-HAMELIN CREEK   | 579   |  |  | 408  | 142   | 266  |   | 10 254  |  |
| <b>HAMMERHILL (SA) 023-23W4</b><br>TOTAL-HAMMERHILL  | 17  |  |  | 11   |   | 11   |   | 420   |  |
| <b>HANGINGSTONE 084-09W4</b><br>UPPER MANNVILLE A<br>OTHER<br>TOTAL-HANGINGSTONE   | 2 105<br>557<br>2 662   | 0.60   | 0.05   | 1 200<br>267<br>1 467  |   | 1 200<br>267<br>1 467  | 37  | 44 916<br>9 972<br>54 888   | 28 023                                     |
| <b>HANLAN 047-17W5</b><br>CARDIUM A<br>CARDIUM 03-046-17<br>WINTERBURN B<br>BEAVERHILL LAKE A<br>BEAVERHILL LAKE B<br>SWAN HILLS 046-17<br>OTHER<br>TOTAL-HANLAN | 544<br>486<br>1 453<br>38 334<br>610<br>1 101<br>829<br>43 357  | 0.90<br>0.90<br>0.75<br>0.80<br>0.70<br>0.75 | 0.10<br>0.10<br>0.10<br>0.25<br>0.25<br>0.25 | 440<br>394<br>981<br>23 000<br>320<br>619<br>574<br>26 328           | 141<br>1 834<br>93  | 440<br>394<br>840<br>21 166<br>227<br>619<br>574<br>24 260             | 40<br>37<br>40<br>38a<br>40<br>37           | 17 789<br>14 747<br>33 961<br>800 286<br>9 178<br>23 169<br>23 206<br>922 336 | 200<br>200<br>200<br>8 034<br>200<br>638   |
| <b>HANMORE (SA) 061-19W4</b><br>TOTAL-HANMORE  | 59  |  |  | 37   |   | 37   |   | 1 385   |  |
| <b>HANNA 031-14W4</b><br>LOWER MANNVILLE E<br>LOWER MANNVILLE F<br>OTHER   | 403<br>689<br>1 218   | 0.80<br>0.80                                 | 0.05<br>0.05                                 | 306<br>524<br>793  | 205<br>462<br>288   | 101<br>62<br>505   | 39<br>39                                    | 3 969<br>2 437<br>19 705  | 1 139<br>1 605                             |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                    |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |  |
| 8.24                        | 0.180    | 0.70        | 8 400               | 41   | 0.852    | 0.59                           | 1 169.5                    | 1952         | 1985                     | TCPL PRODUCTION DECLINE                    |
| 0.74                        | 0.255    | 0.50        | 4 320               | 21   | 0.913    | 0.59                           | 488.4                      | 1949         | 1982                     | CWNGNUL PANALTA TCPL PART OF VIK POOL NO.6 |
| 8.26                        | 0.300    | 0.75        | 4 340               | 25   | 0.916    | 0.58                           | 538.1                      | 1954         | 1985                     | MATERIAL BALANCE                           |
| 5.40                        | 0.290    | 0.70        | 4 190               | 27   | 0.920    | 0.58                           | 561.3                      | 1972         | 1985                     | CWNGNUL PRODUCTION DECLINE                 |
| 5.04                        | 0.184    | 0.75        | 4 400               | 22   | 0.915    | 0.58                           | 628.6                      | 1964         | 1982                     | TCPL PRODUCTION DECLINE                    |
| 3.25                        | 0.105    | 0.60        | 3 940               | 29   | 0.940    | 0.57                           | 661.7                      | 1973         | 1984                     | PANALTA TCPL PRODUCTION DECLINE            |
| 13.54                       | 0.085    | 0.80        | 20 530              | 102  | 0.919    | 0.61                           | 2 534.7                    | 1983         | 1985                     |  |
| 3.51                        | 0.350    | 0.60        | 1 000               | 12   | 0.979    | 0.56                           | 306.5                      | 1974         | 1985                     |  |
| 9.56                        | 0.140    | 0.85        | 26 130              | 79   | 0.884    | 0.70                           | 2 653.6                    | 1974         | 1976                     | PANALTA PROGAS                             |
| 19.52                       | 0.054    | 0.85        | 33 710              | 83   | 0.993    | 0.61                           | 2 887.3                    | 1978         | 1982                     | TCPL                                       |
| 44.30                       | 0.070    | 0.85        | 42 000              | 121  | 1.100    | 0.74                           | 4 133.1                    | 1980         | 1982                     | PANALTA                                    |
| 23.13                       | 0.084    | 0.90        | 43 810              | 144  | 1.095    | 0.07                           | 4 604.8                    | 1976         | 1985                     | PANALTA                                    |
| 18.52                       | 0.064    | 0.90        | 45 500              | 138  | 1.102    | 0.73                           | 4 774.3                    | 1979         | 1984                     | PANALTA                                    |
| 9.85                        | 0.096    | 0.80        | 30 790              | 123  | 0.969    | 0.73                           | 4 705.6                    | 1981         | 1983                     | PANALTA                                    |
| 1.29                        | 0.210    | 0.70        | 9 310               | 37   | 0.824    | 0.65                           | 1 140.1                    | 1972         | 1982                     | TCPL MATERIAL BALANCE                      |
| 2.16                        | 0.220    | 0.70        | 9 390               | 37   | 0.825    | 0.65                           | 1 151.9                    | 1949         | 1984                     | PANALTA TCPL MATERIAL BALANCE              |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE              | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>HANNA 031-14W4 (CONTINUED)</b><br>TOTAL-HANNA          | 2 310   |                          |                         | 1 623  | 955   | 668  |   | 26 111                               |        |
| <b>HANSMAN 040-04W4</b><br>TOTAL-HANSMAN                  | 214   |                          |                         | 139  | 1   | 138  |   | 5 171                                |        |
| <b>HARDY 076-05W4</b><br>TOTAL-HARDY                      | 254   |                          |                         | 134  |   | 134  |   | 5 023                                |        |
| <b>HARLECH (SA) 044-14W5</b><br>TOTAL-HARLECH             | 205   |                          |                         | 147  |   | 147  |   | 5 896                                |        |
| <b>HARLEY 056-27W5</b><br>LEDUC 15-056-27                 | 855   | 0.70                     | 0.25                    | 449  |   | 449  | 44  | 19 832                               | 200    |
| OTHER   | 93  |                          |                         | 67   |   | 67   |   | 2 659                                |        |
| TOTAL-HARLEY  | 948   |                          |                         | 516  |   | 516  |   | 22 491                               |        |
| <b>HARMATTAN EAST 022-03W5</b><br>RUNDLE SOLN             | 5 592   | 0.40                     | 0.30                    | 1 570 <sup>b</sup>   |   |  | 39 <sup>a</sup>                             |                                      |        |
| RUNDLE ASSOC  | 36 782  | c                        | c                       | 30 000 <sup>b</sup>  | 12 930 <sup>b</sup>   | 18 640   | 39 <sup>a</sup>                             | 722 486                              | 19 341 |
| RUNDLE B  | 441   | 0.80                     | 0.15                    | 300  |   | 300  | 40 <sup>a</sup>                             | 12 129                               | 440    |
| OTHER   | 875   |                          |                         | 593  | 74  | 519  |   | 21 062                               |        |
| TOTAL-HARMATTAN EAST                                      | 43 690  |                          |                         | 32 463   | 13 004  | 19 459   |   | 755 677                              |        |
| <b>HARMATTAN-ELKTON 031-04W5</b><br>RUNDLE B SOLN         | 18  | 0.65                     | 0.30                    | 8 <sup>b</sup>   |   |  | 40 <sup>a</sup>                             |                                      |        |
| RUNDLE B ASSOC  | 1 364   | 0.85                     | 0.15                    | 986 <sup>b</sup>   | 1 019 <sup>b</sup>  | 25   | 40 <sup>a</sup>                             | 1 011                                | 5 036  |
| RUNDLE C SOLN   | 5 143   | 0.65                     | 0.30                    | 2 341 <sup>b</sup>   |   |  | 41 <sup>a</sup>                             |                                      |        |
| RUNDLE C ASSOC  | 31 326  | c                        | c                       | 23 300 <sup>b</sup>  | 6 168 <sup>b</sup>  | 19 473   | 41 <sup>a</sup>                             | 807 740                              | 7 020  |
| RUNDLE A  | 2 400   | 0.25                     | 0.14                    | 516  | 403   | 113  | 42 <sup>a</sup>                             | 4 695                                | 1 013  |
| D-3 A   | 13 400  | 0.28                     | 0.79                    | 788  | 664   | 124  | 36 <sup>a</sup>                             | 4 409                                | 4 527  |
| OTHER   | 157   |                          |                         | 115  |   | 115  |   | 4 353                                |        |
| TOTAL-HARMATTAN-ELKTON                                    | 53 808  |                          |                         | 28 054   | 8 254   | 19 800   |   | 820 186                              |        |
| <b>HARMON VALLEY (SA) 082-18W5</b><br>TOTAL-HARMON VALLEY | 81  |                          |                         | 50   |   | 50   |   | 1 834                                |        |
| <b>HARD 101-03W6</b><br>BLUESKY A                         | 3 168   | 0.50                     | 0.05                    | 1 505  |   |  | 37  |                                      | 46 591 |
| BLUESKY A   | 4 531   | 0.70                     | 0.05                    | 3 013  |   |  | 37  |                                      | 26 519 |
| BLUESKY A   | 28  | 0.70                     | 0.05                    | 19   |   |  | 37  |                                      | 718    |
| BLUESKY A   | 654   | 0.70                     | 0.05                    | 435  |   |  | 37  |                                      | 6 557  |
| BLUESKY A   | 4   | 0.55                     | 0.05                    | 2  |   |  | 37  |                                      | 200    |
| BLUESKY A   | 5   | 0.55                     | 0.05                    | 3  |   |  | 37  |                                      | 200    |
| BLUESKY A   | 15  | 0.65                     | 0.05                    | 10   |   |  | 37  |                                      | 200    |
| BLUESKY A   | 5   | 0.70                     | 0.05                    | 4  |   |  | 37  |                                      | 200    |
| BLUESKY A   | 13  | 0.50                     | 0.05                    | 7  |   |  | 37  |                                      | 200    |
| BLUESKY A   | 8   | 0.70                     | 0.10                    | 5  |   |  | 39  |                                      | 200    |
| BLUESKY A TOTAL   | 8 431   | 0.60                     | 0.05                    | 5 003  | 1 392   | 3 611  | 37  | 135 160                              |        |
| OTHER   | 1 318   |                          |                         | 733  | 139   | 594  |   | 23 947                               |        |
| TOTAL-HARD  | 9 749   |                          |                         | 5 736  | 1 531   | 4 205  |   | 159 107                              |        |
| <b>HAROLD LAKE 063-05W4</b><br>TOTAL-HAROLD LAKE          | 159   |                          |                         | 90   |   | 90   |   | 4 009                                |        |
| <b>HARPER (SA) 097-24W4</b><br>TOTAL-HARPER               | 14  |                          |                         | 7  |   | 7  |   | 262                                  |        |
| <b>HARTELL 019-02W5</b><br>TOTAL-HARTELL                  | 431   |                          |                         | 92   | 77  | 15   |   | 590                                  |        |
| <b>HARTMAN 067-04W5</b><br>TOTAL-HARTMAN                  | 23  |                          |                         | 15   |   | 15   |   | 556                                  |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18                       | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>LAST<br>REVIEWED | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                                      |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          | YEAR                     | YEAR                     |  |
| 33.53                       | 0.060    | 0.80        | 44 110              | 144  | 1.133    | 0.57                           | 4 635.1                    | 1976                     | 1980                     | PANALTA BER  |
| 9.14                        | 0.088    | 0.73        | 23 600              | 85   | 0.840    | 0.83                           | 2 521.3                    | 1954                     | 1982                     | A&S TCPL CONCURRENT PRODUCTION GAS CYCLING                   |
| 7.40                        | 0.073    | 0.75        | 23 300              | 63   | 0.797    | 0.84                           | 2 535.6                    | 1954                     | 1982                     | A&S TCPL CONCURRENT PRODUCTION GAS CYCLING                   |
|                             |          |             |                     |      |          |                                |                            | 1970                     | 1983                     |  |
| 1.70                        | 0.092    | 0.80        | 23 670              | 91   | 0.845    | 0.82                           | 2 725.8                    | 1960                     | 1975                     | A&S TCPL MATERIAL BALANCE CONCURRENT PRODUCTION OIL DEPLETED |
| 21.20                       | 0.105    | 0.90        | 25 030              | 94   | 0.873    | 0.84                           | 2 673.0                    | 1954                     | 1983                     | A&S TCPL MATERIAL BALANCE CONCURRENT PRODUCTION OIL DEPLETED |
| 10.67                       | 0.082    | 0.80        | 25 030              | 96   | 0.890    | 0.71                           | 2 788.0                    | 1954                     | 1983                     | A&S TCPL CONCURRENT PRODUCTION GAS CYCLING                   |
| 22.22                       | 0.050    | 0.90        | 32 230              | 110  | 0.767    | 0.92                           | 3 351.8                    | 1957                     | 1982                     | A&S TCPL CONCURRENT PRODUCTION GAS CYCLING                   |
|                             |          |             |                     |      |          |                                |                            | 1961                     | 1983                     | TCPL PRODUCTION DECLINE                                      |
|                             |          |             |                     |      |          |                                |                            |                          |                          | A&S MATERIAL BALANCE   |
| 2.51                        | 0.210    | 0.40        | 3 100               | 19   | 0.936    | 0.58                           | 335.3                      | 1972                     | 1984                     | PART OF BLSKY POOL NO.1                                      |
| 6.30                        | 0.210    | 0.40        | 3 100               | 19   | 0.935    | 0.59                           | 335.3                      | 1972                     | 1984                     | PART OF BLSKY POOL NO.1                                      |
| 1.43                        | 0.210    | 0.40        | 3 100               | 19   | 0.935    | 0.59                           | 335.3                      | 1972                     | 1982                     | PART OF BLSKY POOL NO.1                                      |
| 3.68                        | 0.210    | 0.40        | 3 100               | 19   | 0.935    | 0.59                           | 335.3                      | 1972                     | 1982                     | PART OF BLSKY POOL NO.1                                      |
| 0.90                        | 0.160    | 0.40        | 3 080               | 30   | 0.942    | 0.59                           | 638.7                      | 1972                     | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL                        |
| 1.20                        | 0.160    | 0.40        | 3 130               | 30   | 0.941    | 0.59                           | 637.7                      | 1972                     | 1982                     | 6-10-104-5 W6M   |
| 1.30                        | 0.160    | 0.40        | 3 190               | 25   | 0.932    | 0.59                           | 449.1                      | 1972                     | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL                        |
| 0.90                        | 0.210    | 0.40        | 3 100               | 24   | 0.933    | 0.59                           | 458.5                      | 1972                     | 1982                     | 6-18-104-5 W6M   |
| 4.70                        | 0.210    | 0.40        | 1 730               | 27   | 0.963    | 0.59                           | 570.3                      | 1972                     | 1982                     | PART OF BLSKY POOL NO.1 PRODUCTION DECLINE                   |
| 1.85                        | 0.180    | 0.40        | 3 100               | 30   | 0.945    | 0.65                           | 577.3                      | 1972                     | 1982                     | ASSIGNED WELL 10-28-104-5 W6M                                |
|                             |          |             |                     |      |          |                                |                            | 1972                     | 1984                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL                        |
|                             |          |             |                     |      |          |                                |                            |                          |                          | 10-9-105-5 W6M   |
|                             |          |             |                     |      |          |                                |                            |                          |                          | PART OF BLSKY POOL NO.1 ASSIGNED WELL                        |
|                             |          |             |                     |      |          |                                |                            |                          |                          | 11-30-106-6 W6M  |
|                             |          |             |                     |      |          |                                |                            |                          |                          | PART OF BLSKY POOL NO.1 ASSIGNED WELL                        |
|                             |          |             |                     |      |          |                                |                            |                          |                          | 10-33-104-6 W6M  |
|                             |          |             |                     |      |          |                                |                            |                          |                          | A&S CWNGNUL PANALTA TCPL PART OF BLSKY POOL NO.1             |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE     | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| HASTINGS 050-20W4<br>TOTAL-HASTINGS              | 252   |                          |                         | 154  | 102   | 52   |   | 1 959                                |       |
| HATTONFORD (SA) 057-14W5<br>TOTAL-HATTONFORD     | 75  |                          |                         | 48   |   | 48   |   | 1 779                                |       |
| HAWK 097-20W5<br>TOTAL-HAWK                      | 32  |                          |                         | 21   |   | 21   |   | 786                                  |       |
| HAYNES 038-24W4<br>TOTAL-HAYNES                  | 165   |                          |                         | 93   |   | 93   |   | 3 655                                |       |
| HAYS 013-14W4<br>TOTAL-HAYS                      | 102   |                          |                         | 70   |   | 70   |   | 2 647                                |       |
| HAYTER 041-01W4<br>TOTAL-HAYTER                  | 617   |                          |                         | 426  |   | 426  |   | 15 946                               |       |
| HEART LAKE 069-10W4<br>TOTAL-HEART LAKE          | 562   |                          |                         | 289  | 38  | 251  |   | 9 460                                |       |
| HEART RIVER 077-16W5<br>PADDY A                  | 720   | 0.80                     | 0.05                    | 547  | 73  | 474  | 37  | 17 742                               | 2 345 |
| NOTIKEWIN  | 637   | 0.75                     | 0.05                    | 454  | 166   | 288  | 37  | 10 780                               | 2 291 |
| NOTEKEWIN B                                      | 458   | 0.80                     | 0.05                    | 348  | 57  | 291  | 37  | 10 892                               | 1 769 |
| OTHER  | 196   |                          |                         | 127  | 28  | 99   |   | 3 706                                |       |
| TOTAL-HEART RIVER                                | 2 011   |                          |                         | 1 476  | 324   | 1 152  |   | 43 120                               |       |
| HEATHDALE 027-08W4<br>TOTAL-HEATHDALE            | 2 077   |                          |                         | 1 474  | 28  | 1 446  |   | 54 969                               |       |
| HECTOR 017-16W4<br>TOTAL-HECTOR                  | 669   |                          |                         | 507  | 69  | 438  |   | 16 447                               |       |
| HELDAR 058-07W5<br>TOTAL-HELDAR                  | 888   |                          |                         | 610  |   | 610  |   | 23 951                               |       |
| HELICOPTER 102-08W6<br>TOTAL-HELICOPTER          | 35  |                          |                         | 23   |   | 23   |   | 921                                  |       |
| HELMSDALE 026-06W4<br>TOTAL-HELMSDALE            | 85  |                          |                         | 55   | 20  | 35   |   | 1 507                                |       |
| HERCULES 051-23W4<br>ELLERSLIE C                 | 519   | 0.75                     | 0.05                    | 370  | 18  | 352  | 36  | 12 651                               | 1 182 |
| OTHER  | 573   |                          |                         | 365  | 90  | 275  |   | 10 303                               |       |
| TOTAL-HERCULES                                   | 1 092   |                          |                         | 735  | 108   | 627  |   | 22 954                               |       |
| HERRONTON 019-26W4<br>BELLY RIVER A              |   | 0.80                     | 0.05                    |  |   |  | 36  |                                      | 7 664 |
| BELLY RIVER B                                    |   | 0.80                     | 0.05                    |  |   |  | 36  |                                      | 2 491 |
| BELLY RIVER A & B TOTAL                          | 1 619   | 0.80                     | 0.05                    | 1 230  | 1 043   | 187  | 36  | 6 790                                |       |
| OTHER  | 552   |                          |                         | 297  | 78  | 219  |   | 8 035                                |       |
| TOTAL-HERRONTON                                  | 2 171   |                          |                         | 1 527  | 1 121   | 406  |   | 14 825                               |       |
| HIGH PRAIRIE (SA) 074-16W5<br>TOTAL-HIGH PRAIRIE | 460   |                          |                         | 324  |   | 324  |   | 12 762                               |       |
| HIGH RIVER (SA) 018-29W4<br>TOTAL-HIGH RIVER     | 190   |                          |                         | 122  |   | 122  |   | 4 566                                |       |
| HIGHLAND 029-02W4<br>TOTAL-HIGHLAND              | 392   |                          |                         | 305  |   | 305  |   | 11 518                               |       |
| HIGHVALE 051-04W5<br>BANFF H SOLN                | 656   | 0.65                     | 0.10                    | 383  | 6   | 377  | 42  | 15 947                               |       |
| OTHER  | 4 058   |                          |                         | 2 607  | 135   | 2 472  |   | 104 031                              |       |
| TOTAL-HIGHVALE                                   | 4 714   |                          |                         | 2 990  | 141   | 2 849  |   | 119 978                              |       |
| HIGHWAY (SA) 055-09W5<br>TOTAL-HIGHWAY           | 202   |                          |                         | 129  |   | 129  |   | 5 070                                |       |



| 10                          | 11                      | 12                   | 13                      | 14             | 15                      | 16                             | 17                         | 18                   | 19                       | 20   |
|-----------------------------|-------------------------|----------------------|-------------------------|----------------|-------------------------|--------------------------------|----------------------------|----------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE     | TEMP           | COMPRESS                | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR         | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                                    |
| m                           | frac                    | frac                 | kPa                     | °C             | frac                    | frac                           | m                          |                      |                          |  |
| 3.12<br>3.99<br>4.25        | 0.287<br>0.323<br>0.284 | 0.70<br>0.65<br>0.65 | 1 850<br>3 210<br>3 170 | 21<br>21<br>20 | 0.961<br>0.936<br>0.933 | 0.56<br>0.56<br>0.56           | 498.2<br>539.3<br>519.9    | 1952<br>1952<br>1977 | 1982<br>1982<br>1982     | LOC U PANALTA MATERIAL BALANCE<br>LOC U PANALTA<br>PANALTA |
| 3.86                        | 0.200                   | 0.65                 | 8 350                   | 38             | 0.873                   | 0.60                           | 1 178.9                    | 1953                 | 1984                     | CWNGNUL  |
| 4.10<br>3.01                | 0.212<br>0.200          | 0.65<br>0.55         | 3 280<br>3 310          | 35<br>35       | 0.948<br>0.948          | 0.57<br>0.57                   | 922.4<br>995.4             | 1973<br>1973<br>1973 | 1985<br>1984<br>1984     | MATERIAL BALANCE<br>MATERIAL BALANCE<br>CWNGNUL KANNGAZ    |
|                             |                         |                      |                         |                |                         | 0.74                           |                            | 1981                 | 1985                     |  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE   | 1  | 2  | 3  | 4  | 5   | 6  | 7   | 8   | 9  |
|--|--|--|--|--|---|--|---|---|--|
|  | RAW GAS  |  |  | MARKETABLE GAS   |   |  |   |   | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup>              | POOL<br>RECOVERY<br>frac                                     | SURFACE<br>LOSS<br>frac                              | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup>     | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ                    |  |
| HIGHWOOD (SA) 017-02W5<br>TOTAL-HIGHWOOD   | 3  |  |  | 2  |   | 2  |   | 75  |  |
| HILL 085-11W6<br>TOTAL-HILL  | 81   |  |  | 57   | 10  | 47   |   | 1 865   |  |
| HILLSDOWN 037-25W4<br>TOTAL-HILLSDOWN  | 218  |  |  | 133  |   | 133  |   | 5 136   |  |
| HINES 085-03W6<br>TOTAL-HINES  | 1 606  |  |  | 989  | 239   | 750  |   | 28 604  |  |
| HINTON 051-25W5<br>DUNVEGAN A<br>TOTAL-HINTON  | 1 888<br>1 888   | 0.50   | 0.10   | 850<br>850   | 85<br>85  | 765<br>765   | 40  | 30 355<br>30 355  | 2 076  |
| HOLBURN 050-01W5<br>TOTAL-HOLBURN  | 1 558  |  |  | 1 087  | 167   | 920  |   | 38 566  |  |
| HOLLOW 061-20W4<br>TOTAL-HOLLOW  | 266  |  |  | 170  | 47  | 123  |   | 4 604   |  |
| HOLMBERG 044-17W4<br>GLAUCONITIC A<br>GLAUCONITIC E<br>OTHER<br>TOTAL-HOLMBERG   | 554<br>624<br>3 883<br>5 061   | 0.80<br>0.75   | 0.05<br>0.10   | 421<br>421<br>2 591<br>3 433   | 118<br>64<br>502<br>684   | 303<br>357<br>2 089<br>2 749   | 39<br>39                                    | 11 908<br>14 030<br>80 728<br>106 666                   | 1 658<br>1 370   |
| HOMEGLEN RIMBEY 043-01W5<br>D-3 SOLN<br>D-3 ASSOC<br>OTHER<br>TOTAL-HOMEGLEN RIMBEY  | 2 459<br>30 653<br>1 956<br>35 068   | 0.50<br>0.88   | 0.15<br>0.18   | 1 040 <sup>b</sup><br>22 100 <sup>b</sup><br>1 254<br>24 394             | 22 426 <sup>b</sup><br>76<br>1 178<br>22 502                      | 714<br>1 178<br>1 892  | 39a<br>39a                                  | 27 796<br>46 827<br>74 623                              | 4 662  |
| HONDO 070-27W4<br>TOTAL-HONDO  | 51   |  |  | 34   |   | 34   |   | 1 273   |  |
| HONEYSUCKLE (SA) 046-26W4<br>TOTAL-HONEYSUCKLE   | 130  |  |  | 89   |   | 89   |   | 3 665   |  |
| HOOKE 015-29W4<br>LIVINGSTONE 05-015-29<br>TOTAL-HOOKE   | 715<br>715   | 0.70   | 0.20   | 401<br>401   |   | 401<br>401   | 37  | 15 009<br>15 009  | 200  |
| HOOLE 081-24W4<br>WABISKAW A<br>WABAMUN A<br>OTHER<br>TOTAL-HOOLE  | 619<br>1 168<br>166<br>1 953   | 0.70<br>0.65   | 0.05<br>0.05   | 411<br>721<br>100<br>1 232   | 73<br>1<br>74   | 338<br>720<br>100<br>1 158   | 37<br>37                                    | 12 398<br>26 410<br>3 691<br>42 499                     | 5 770<br>9 296   |
| HORSEFLY LAKE 008-16W4<br>TOTAL-HORSEFLY LAKE  | 43   |  |  | 28   |   | 28   |   | 1 059   |  |
| HOSSELA 060-06W4<br>TOTAL-HOSSELA  | 121  |  |  | 76   | 37  | 39   |   | 1 505   |  |
| HOTCHKISS 094-01W5<br>BLUESKY A<br>BLUESKY D<br>BLUESKY E<br>SHUNDA A<br>BLUESKY G<br>BLUESKY D,E,G,& SHUN TOTAL<br>DEBOLT B<br>DEBOLT A<br>OTHER<br>TOTAL-HOTCHKISS | 965<br>195<br>476<br>3 342<br>13<br>4 026<br>652<br>4 316<br>1 386<br>11 345 | 0.80<br>0.65<br>0.80<br>0.80<br>0.65<br>0.80<br>0.50<br>0.70 | 0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05 | 733<br>121<br>362<br>2 540<br>8<br>3 031<br>310<br>2 870<br>858<br>7 802 | 689<br>1 527<br>191<br>1 714<br>289<br>4 410                      | 44<br>1 504<br>119<br>1 156<br>569<br>3 392                            | 39<br>39<br>39<br>40<br>39<br>40<br>40      | 1 729<br>59 107<br>4 766<br>46 298<br>22 434<br>134 334 | 5 282<br>2 323<br>4 923<br>18 099<br>200<br>1 878<br>7 316 |
| HOUSE 082-15W4<br>GROSMONT A<br>OTHER<br>TOTAL-HOUSE   | 4 210<br>158<br>4 368  | 0.40   | 0.05   | 1 600<br>77<br>1 677   | 150<br>77<br>150  | 1 450<br>77<br>1 527   | 37  | 53 737<br>2 882<br>56 619                               | 62 198   |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DEPOSITION AND REMARKS   |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |  |
| 4.26                        | 0.110    | 0.55        | 54 200              | 91   | 1.200    | 0.61                           | 3 154.4                    | 1974         | 1983                     | PANALTA  |
| 2.64                        | 0.220    | 0.70        | 7 620               | 33   | 0.862    | 0.63                           | 1 028.7                    | 1971         | 1982                     | A&S TCPL   |
| 3.55                        | 0.229    | 0.70        | 7 560               | 44   | 0.872    | 0.66                           | 1 042.8                    | 1970         | 1985                     | A&S  |
| 52.52                       | 0.075    | 0.90        | 19 530              | 82   | 0.844    | 0.72<br>0.72                   | 2 387.5                    | 1953<br>1953 | 1973<br>1973             | A&S TCPL PROGAS CONCURRENT PRODUCTION<br>A&S TCPL PROGAS CONCURRENT PRODUCTION |
| 21.00                       | 0.098    | 0.80        | 24 900              | 86   | 0.908    | 0.69                           | 3 388.3                    | 1980         | 1982                     | PROGAS BER   |
| 2.53                        | 0.260    | 0.60        | 2 680               | 23   | 0.947    | 0.57                           | 418.7                      | 1967         | 1985                     | PROGAS   |
| 5.18                        | 0.140    | 0.75        | 2 300               | 24   | 0.953    | 0.58                           | 457.4                      | 1967         | 1985                     | PANALTA PROGAS   |
| 1.56                        | 0.250    | 0.50        | 5 450               | 23   | 0.903    | 0.61                           | 674.4                      | 1971         | 1981                     | PANALTA TCPL MATERIAL BALANCE  |
| 1.30                        | 0.210    | 0.55        | 5 450               | 33   | 0.905    | 0.58                           | 715.1                      | 1974         | 1983                     |  |
| 1.43                        | 0.210    | 0.55        | 5 450               | 22   | 0.898    | 0.56                           | 645.4                      | 1976         | 1979                     |  |
| 3.09                        | 0.186    | 0.55        | 5 430               | 23   | 0.893    | 0.58                           | 678.9                      | 1975         | 1981                     |  |
| 1.00                        | 0.180    | 0.70        | 4 753               | 25   | 0.890    | 0.61                           | 663.4                      | 1977         | 1980                     |  |
| 4.39                        | 0.230    | 0.60        | 5 460               | 27   | 0.903    | 0.58                           | 688.5                      | 1974         | 1985                     | PANALTA TCPL   |
| 5.12                        | 0.210    | 0.50        | 5 500               | 30   | 0.907    | 0.58                           | 725.4                      | 1972         | 1984                     | PANALTA  |
|                             |          |             |                     |      |          |                                |                            | 1973         | 1984                     | PANALTA PART OF DBLT POOL NO. 1 MATERIAL BALANCE                               |
| 26.86                       | 0.120    | 0.15        | 1 390               | 18   | 0.970    | 0.57                           | 314.5                      | 1973         | 1982                     | PANALTA PROGAS   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>HOWARD 079-05W6</b><br>TOTAL-HOWARD       | 142   |                          |                         | 99   |   | 99   |   | 3 776                                |        |
| <b>HUDSON 030-02W4</b><br>VIKING A           | 1 067   | 0.70                     | 0.08                    | 687  | 508   | 179  | 38  | 6 834                                | 7 860  |
| OTHER  | 973   |                          |                         | 682  | 41  | 641  |   | 24 335                               |        |
| TOTAL-HUDSON                                 | 2 040   |                          |                         | 1 369  | 549   | 820  |   | 31 169                               |        |
| <b>HUNTER VALLEY 029-09W5</b><br>RUNDLE A    | 2 844   | 0.75                     | 0.25                    | 1 600  | 634   | 966  | 37  | 36 157                               | 1 117  |
| TOTAL-HUNTER VALLEY                          | 2 844   |                          |                         | 1 600  | 634   | 966  |   | 36 157                               |        |
| <b>HUSSAR 025-20W4</b><br>BELLY RIVER A      | 392   | 0.80                     | 0.05                    | 298  |   |  | 37  |                                      | 4 984  |
| BELLY RIVER D                                | 282   | 0.80                     | 0.05                    | 215  |   |  | 37  |                                      | 2 699  |
| BELLY RIVER E                                | 4   | 0.80                     | 0.05                    | 3  |   |  | 37  |                                      | 128    |
| BELLY RIVER F                                | 13  | 0.80                     | 0.05                    | 10   |   |  | 37  |                                      | 150    |
| BELLY RIVER A,D,E & F TOTAL                  | 691   | 0.80                     | 0.05                    | 526  | 446   | 80   | 37  | 2 994                                |        |
| MILK RIVER A                                 | 193   | 0.70                     | 0.05                    | 128  |   |  | 36  |                                      | 2 453  |
| MEDICINE HAT A                               | 4 344   | 0.70                     | 0.03                    | 2 950  |   |  | 36a   |                                      | 63 126 |
| SE ALTA GAS SYS (MU) TOTAL                   | 4 537   | 0.70                     | 0.05                    | 3 078  | 128   | 2 950  | 36a   | 107 115                              |        |
| VIKING B                                     | 792   | 0.90                     | 0.10                    | 642  | 242   | 400  | 38a   | 15 272                               | 4 583  |
| VIKING E                                     | 413   | 0.80                     | 0.05                    | 314  | 292   | 22   | 38a   | 840                                  | 5 499  |
| VIKING L                                     | 653   | 0.70                     | 0.05                    | 434  | 162   | 272  | 39  | 10 488                               | 3 112  |
| BASAL COLDRADD A                             | 584   | 0.90                     | 0.05                    | 500  | 346   | 154  | 38a   | 5 880                                | 6 752  |
| BASAL COLORADO C                             | 690   | 0.75                     | 0.05                    | 492  | 484   | 8  | 39a   | 308                                  | 6 507  |
| GLAUCONITIC B SOLN                           | 105   | 0.65                     | 0.15                    | 58b  |   |  | 39a   |                                      |        |
| GLAUCONITIC B ASSOC                          | 609   | 0.90                     | 0.10                    | 493b   | 404b  | 147  | 39a   | 5 668                                | 1 329  |
| GLAUCONITIC A ASSOC                          | 2 502   | 0.92                     | 0.15                    | 1 960b   |   |  | 39  |                                      | 2 603  |
| GLAUCONITIC A SOLN                           | 572   | 0.65                     | 0.25                    | 279b   |   |  | 39  |                                      |        |
| GLAUCONITIC A ASSOC                          | 379   | 0.92                     | 0.15                    | 295b   |   |  | 39  |                                      | 287    |
| GLAUCONITIC A TOTAL                          | 3 453   | 0.90                     | 0.15                    | 2 534b   | 1 031b  | 1 503  | 39  | 57 956                               |        |
| GLAUCONITIC N                                | 3 766   | 0.90                     | 0.05                    | 3 220  | 3 016   | 204  | 39a   | 7 866                                | 5 111  |
| GLAUCONITIC P                                | 625   | 0.85                     | 0.05                    | 505  | 469   | 36   | 39a   | 1 388                                | 200    |
| GLAUCONITIC Q                                | 673   | 0.90                     | 0.10                    | 545  | 530   | 15   | 39a   | 578                                  | 617    |
| GLAUCONITIC R                                | 562   | 0.90                     | 0.10                    | 456  | 391   | 65   | 39a   | 2 506                                | 200    |
| GLAUCONITIC FF                               | 475   | 0.80                     | 0.05                    | 361  | 342   | 19   | 39a   | 733                                  | 200    |
| GLAUCONITIC JJ                               | 1 404   | 0.75                     | 0.10                    | 948  | 196   | 752  | 39  | 28 997                               | 5 830  |
| GLAUCONITIC III                              | 641   | 0.70                     | 0.10                    | 404  | 83  | 321  | 39  | 12 378                               | 2 570  |
| OSTRACOD F                                   | 752   | 0.90                     | 0.10                    | 609  | 52  | 557  | 39a   | 21 478                               | 3 359  |
| OSTRACOD R                                   | 685   | 0.80                     | 0.05                    | 521  | 225   | 296  | 39a   | 11 414                               | 2 952  |
| BASAL MANNVILLE B                            | 1 369   | 0.80                     | 0.10                    | 986  | 14  | 972  | 39a   | 37 480                               | 953    |
| OTHER  | 10 881  |                          |                         | 7 042  | 2 148   | 4 894  |   | 188 276                              |        |
| TOTAL-HUSSAR                                 | 34 360  |                          |                         | 24 668   | 11 001  | 13 667   |   | 519 615                              |        |
| <b>HUXLEY 034-24W4</b><br>VIKING A           |   | 0.70                     | 0.05                    |  |   |  | 41  |                                      | 4 167  |
| UPPER MANNVILLE A                            |   | 0.70                     | 0.05                    |  |   |  | 41  |                                      | 200    |
| LOWER MANNVILLE A                            |   | 0.70                     | 0.05                    |  |   |  | 41  |                                      | 200    |
| VIK A,UMN A & LMN A TOTAL                    | 1 699   | 0.70                     | 0.05                    | 1 130  | 763   | 367  | 41  | 15 113                               |        |
| OTHER  | 789   |                          |                         | 457  | 58  | 399  |   | 16 009                               |        |
| TOTAL-HUXLEY                                 | 2 488   |                          |                         | 1 587  | 821   | 766  |   | 31 122                               |        |
| <b>HYLO 065-15W4</b><br>LOWER MANNVILLE A    | 760   | 0.70                     | 0.05                    | 505  | 156   | 349  | 37  | 13 063                               | 6 383  |
| OTHER  | 1 275   |                          |                         | 809  | 233   | 576  |   | 21 511                               |        |
| TOTAL-HYLO                                   | 2 035   |                          |                         | 1 314  | 389   | 925  |   | 34 574                               |        |
| <b>HYPHE 073-10W6</b><br>TOTAL-HYPHE         | 1 039   |                          |                         | 752  |   | 752  |   | 28 711                               |        |
| <b>INLAND 051-15W4</b><br>TOTAL-INLAND       | 2 731   |                          |                         | 1 461  | 358   | 1 103  |   | 41 313                               |        |
| <b>INNISFAIL 035-01W5</b><br>D-3 SOLN        | 5 910   | 0.60                     | 0.45                    | 1 950  | 1 793   | 157  | 38  | 5 994                                |        |
| OTHER  | 1 581   |                          |                         | 929  | 14  | 915  |   | 36 001                               |        |
| TOTAL-INNISFAIL                              | 7 491   |                          |                         | 2 879  | 1 807   | 1 072  |   | 41 995                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15          | 16                             | 17                         | 18           | 19                       | 20  |
|-----------------------------|----------|-------------|---------------------|------|-------------|--------------------------------|----------------------------|--------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | COMPRESSION | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS   |
| m                           | frac     | frac        | kPa                 | OC   | frac        | frac                           | m                          |              |                          |   |
| 1.82                        | 0.220    | 0.40        | 6 570               | 32   | 0.892       | 0.58                           | 731.1                      | 1954         | 1985                     | PANALTA TCPL PART OF VIK POOL NO. 6<br>PRODUCTION DECLINE   |
| 16.21                       | 0.058    | 0.80        | 24 670              | 64   | 0.840       | 0.67                           | 2 634.6                    | 1962         | 1984                     | A&S TCPL MATERIAL BALANCE   |
| 2.12                        | 0.250    | 0.50        | 2 960               | 27   | 0.945       | 0.57                           | 629.9                      | 1960         | 1985                     | CWNGNUL TCPL<br>PART OF MILK RIV POOL NO. 1<br>PART OF MED HAT POOL NO. 1<br>PROGAS TCPL<br>TCPL<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>CONING GAS CAP<br>CONING GAS CAP<br>CONING GAS CAP<br>TCPL CONING GAS CAP<br>TCPL PRODUCTION DECLINE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL |
| 1.91                        | 0.250    | 0.50        | 3 170               | 27   | 0.941       | 0.57                           | 638.0                      | 1960         | 1985                     |   |
| 0.81                        | 0.250    | 0.50        | 3 170               | 27   | 0.941       | 0.57                           | 662.9                      | 1968         | 1985                     |   |
| 2.16                        | 0.250    | 0.50        | 3 170               | 27   | 0.941       | 0.57                           | 694.4                      | 1965         | 1985                     |   |
|                             |          |             |                     |      |             |                                |                            | 1960         | 1985                     |   |
| 2.82                        | 0.154    | 0.55        | 3 140               | 16   | 0.938       | 0.56                           | 798.8                      | 1910         | 1983                     | TCPL<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>CONING GAS CAP<br>CONING GAS CAP<br>CONING GAS CAP<br>TCPL CONING GAS CAP<br>TCPL PRODUCTION DECLINE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL   |
| 1.59                        | 0.170    | 0.55        | 4 310               | 17   | 0.913       | 0.57                           | 487.7                      | 1904         | 1982                     |   |
| 1.50                        | 0.203    | 0.70        | 7 740               | 40   | 0.867       | 0.63                           | 1 229.0                    | 1955         | 1985                     | TCPL<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>CONING GAS CAP<br>CONING GAS CAP<br>CONING GAS CAP<br>TCPL CONING GAS CAP<br>TCPL PRODUCTION DECLINE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL   |
| 1.08                        | 0.203    | 0.70        | 7 930               | 38   | 0.893       | 0.63                           | 1 127.8                    | 1961         | 1982                     |   |
| 3.23                        | 0.194    | 0.55        | 7 250               | 33   | 0.878       | 0.60                           | 1 056.6                    | 1955         | 1985                     | TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>CONING GAS CAP<br>CONING GAS CAP<br>CONING GAS CAP<br>TCPL CONING GAS CAP<br>TCPL PRODUCTION DECLINE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL  |
| 1.06                        | 0.169    | 0.70        | 8 550               | 44   | 0.877       | 0.60                           | 1 320.1                    | 1952         | 1984                     |   |
| 1.07                        | 0.177    | 0.70        | 8 470               | 45   | 0.880       | 0.61                           | 1 255.8                    | 1955         | 1985                     | TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>CONING GAS CAP<br>CONING GAS CAP<br>CONING GAS CAP<br>TCPL CONING GAS CAP<br>TCPL PRODUCTION DECLINE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL  |
|                             |          |             |                     |      |             | 0.67                           |                            | 1956         | 1985                     |   |
| 2.29                        | 0.203    | 0.70        | 10 140              | 45   | 0.830       | 0.67                           | 1 434.0                    | 1956         | 1985                     | TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION<br>CONING GAS CAP<br>CONING GAS CAP<br>CONING GAS CAP<br>TCPL CONING GAS CAP<br>TCPL PRODUCTION DECLINE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL  |
| 5.12                        | 0.227    | 0.75        | 10 200              | 44   | 0.832       | 0.64                           | 1 426.5                    | 1952         | 1975                     |   |
| 7.13                        | 0.219    | 0.75        | 10 240              | 44   | 0.832       | 0.64                           | 1 439.6                    | 1952         | 1975                     | TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL  |
|                             |          |             |                     |      |             |                                |                            | 1952         | 1975                     |   |
| 4.38                        | 0.209    | 0.70        | 10 140              | 44   | 0.831       | 0.64                           | 1 366.0                    | 1955         | 1984                     | TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL  |
| 17.37                       | 0.220    | 0.75        | 10 270              | 44   | 0.824       | 0.65                           | 1 375.0                    | 1957         | 1984                     |   |
| 3.23                        | 0.208    | 0.70        | 10 140              | 44   | 0.817       | 0.67                           | 1 401.2                    | 1960         | 1980                     | TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL   |
| 17.27                       | 0.210    | 0.70        | 10 270              | 44   | 0.833       | 0.64                           | 1 416.1                    | 1960         | 1973                     |   |
| 1.85                        | 0.220    | 0.75        | 10 070              | 44   | 0.831       | 0.64                           | 1 402.7                    | 1968         | 1984                     | TCPL<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL PRODUCTION DECLINE<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL  |
| 2.34                        | 0.170    | 0.55        | 9 900               | 43   | 0.827       | 0.70                           | 1 419.4                    | 1960         | 1984                     |   |
| 2.18                        | 0.187    | 0.55        | 10 000              | 39   | 0.819       | 0.65                           | 1 248.3                    | 1962         | 1985                     | TCPL<br>TCPL<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL   |
| 1.40                        | 0.211    | 0.75        | 9 470               | 44   | 0.840       | 0.65                           | 1 394.8                    | 1956         | 1973                     |   |
| 1.74                        | 0.200    | 0.70        | 10 220              | 46   | 0.818       | 0.67                           | 1 449.1                    | 1956         | 1984                     | TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL<br>TCPL MATERIAL BALANCE<br>TCPL  |
| 12.17                       | 0.150    | 0.70        | 10 160              | 42   | 0.816       | 0.67                           | 1 370.6                    | 1960         | 1985                     |   |
| 4.32                        | 0.150    | 0.40        | 8 570               | 52   | 0.873       | 0.63                           | 1 487.5                    | 1962         | 1985                     | PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>TCPL  |
| 2.10                        | 0.180    | 0.50        | 11 250              | 60   | 0.830       | 0.68                           | 1 592.5                    | 1963         | 1985                     |   |
| 2.70                        | 0.190    | 0.65        | 11 420              | 62   | 0.840       | 0.68                           | 1 686.0                    | 1962         | 1985                     |   |
| 3.51                        | 0.244    | 0.55        | 2 460               | 19   | 0.948       | 0.57                           | 482.2                      | 1972         | 1982                     | TCPL  |
|                             |          |             |                     |      |             |                                |                            | 1957         | 1976                     | TCPL  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE       | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>INVERNESS (SA) 068-12W5</b><br>TOTAL-INVERNESS  | 123   |                          |                         | 78   |   | 78   |   | 2 919                                |        |
| <b>IOSEGUN (SA) 067-20W5</b><br>TOTAL-IDSEGUN      | 102   |                          |                         | 78   |   | 78   |   | 2 891                                |        |
| <b>IPIATIK 072-09W4</b><br>GRAND RAPIDS A          | 745   | 0.60                     | 0.05                    | 425  | 52  | 373  | 39  | 14 521                               | 9 622  |
| GRAND RAPIDS B                                     | 896   | 0.50                     | 0.05                    | 425  | 150   | 275  | 37  | 10 229                               | 10 903 |
| OTHER  | 423   |                          |                         | 216  | 62  | 154  |   | 5 830                                |        |
| TOTAL-IPIATIK                                      | 2 064   |                          |                         | 1 067  | 264   | 803  |   | 30 580                               |        |
| <b>IRON SPRINGS 011-20W4</b><br>TOTAL-IRON SPRINGS | 238   |                          |                         | 160  |   | 160  |   | 6 229                                |        |
| <b>IRRICANA 027-27W4</b><br>WABAMUN A              | 1 333   | 0.45                     | 0.25                    | 450  | 386   | 64   | 37  | 2 348                                | 842    |
| WABAMUN B  | 1 076   | 0.55                     | 0.20                    | 474  |   | 474  | 37  | 17 386                               | 1 948  |
| OTHER  | 284   |                          |                         | 179  | 51  | 128  |   | 4 702                                |        |
| TOTAL-IRRICANA                                     | 2 693   |                          |                         | 1 103  | 437   | 666  |   | 24 436                               |        |
| <b>ISLAY 050-04W4</b><br>TOTAL-ISLAY               | 90  |                          |                         | 63   | 4   | 59   |   | 2 098                                |        |
| <b>JACK 085-04W6</b><br>MONTNEY A                  | 575   | 0.80                     | 0.05                    | 437  | 42  | 395  | 38  | 14 982                               | 928    |
| OTHER  | 301   |                          |                         | 205  |   | 205  |   | 7 796                                |        |
| TOTAL-JACK   | 876   |                          |                         | 642  | 42  | 600  |   | 22 778                               |        |
| <b>JARVIE 063-01W5</b><br>VIKING A                 | 505   | 0.80                     | 0.05                    | 384  | 4   | 380  | 39  | 14 793                               | 5 046  |
| ELLERSLIE B  | 428   | 0.75                     | 0.05                    | 305  | 37  | 268  | 41  | 11 036                               | 1 768  |
| OTHER  | 1 188   |                          |                         | 780  | 54  | 726  |   | 29 478                               |        |
| TOTAL-JARVIE                                       | 2 121   |                          |                         | 1 469  | 95  | 1 374  |   | 55 307                               |        |
| <b>JARVIE NORTH 064-02W5</b><br>TOTAL-JARVIE NORTH | 413   |                          |                         | 278  |   | 278  |   | 11 292                               |        |
| <b>JASLAN 067-21W4</b><br>TOTAL-JASLAN             | 110   |                          |                         | 69   |   | 69   |   | 2 613                                |        |
| <b>JEAN (SA) 098-24W4</b><br>TOTAL-JEAN            | 131   |                          |                         | 66   |   | 66   |   | 2 470                                |        |
| <b>JEFFREY 059-23W4</b><br>TOTAL-JEFFREY           | 182   |                          |                         | 121  | 1   | 120  |   | 4 491                                |        |
| <b>JENNER 020-09W4</b><br>MILK RIVER A             | 5 278   | 0.70                     | 0.05                    | 3 510  |   |  | 36a   |                                      | 38 808 |
| MEDICINE HAT A                                     | 1 914   | 0.70                     | 0.03                    | 1 300  |   |  | 36a   |                                      | 35 954 |
| MEDICINE HAT C                                     | 74  | 0.50                     | 0.03                    | 36   |   |  | 36a   |                                      | 2 857  |
| MEDICINE HAT D                                     | 144   | 0.50                     | 0.03                    | 70   |   |  | 36a   |                                      | 5 026  |
| SE ALTA GAS SYS(MU) TOTAL                          | 7 410   | 0.70                     | 0.05                    | 4 916  | 1 142   | 3 774  | 36a   | 137 034                              |        |
| SECOND WHITE SPECKS A                              | 1 581   | 0.75                     | 0.05                    | 1 130  | 290   | 840  | 36  | 30 500                               | 19 936 |
| VIKING J   | 436   | 0.80                     | 0.05                    | 332  | 76  | 256  | 36  | 9 295                                | 2 968  |
| BASAL COLORADO D                                   | 669   | 0.85                     | 0.05                    | 540  | 30  | 510  | 39  | 19 854                               | 2 166  |
| ARCS A   | 547   | 0.80                     | 0.20                    | 350  | 37  | 313  | 37  | 11 716                               | 400    |
| OTHER  | 3 914   |                          |                         | 2 496  | 337   | 2 159  |   | 83 482                               |        |
| TOTAL-JENNER                                       | 14 557  |                          |                         | 9 764  | 1 912   | 7 852  |   | 291 881                              |        |
| <b>JILES 063-21W4</b><br>TOTAL-JILES               | 316   |                          |                         | 188  | 42  | 146  |   | 5 574                                |        |
| <b>JOAN (SA) 092-10W5</b><br>TOTAL-JOAN            | 100   |                          |                         | 66   |   | 66   |   | 2 471                                |        |
| <b>JOARCAM 048-21W4</b><br>VIKING SOLN             | 1 340   | 0.60                     | 0.40                    | 482b   |   |  | 39  |                                      |        |
| VIKING ASSOC                                       | 1 619   | 0.80                     | 0.45                    | 712b   | 1 109b  | 85   | 39  | 3 309                                | 13 200 |



| 10                            | 11                               | 12                           | 13                                | 14                   | 15                               | 16                             | 17                                 | 18                           | 19                           | 20   |
|-------------------------------|----------------------------------|------------------------------|-----------------------------------|----------------------|----------------------------------|--------------------------------|------------------------------------|------------------------------|------------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS   | POROSITY                         | GAS<br>SATN                  | INITIAL<br>PRESSURE               | TEMP                 | COMPRESS                         | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH         | DISC<br>YEAR                 | DATE<br>LAST<br>REVIEWED     | DISPOSITION AND REMARKS  |
| m                             | frac                             | frac                         | kPa                               | °C                   | frac                             | frac                           | m                                  |                              |                              |  |
| 2.15<br>2.47                  | 0.306<br>0.291                   | 0.70<br>0.70                 | 1 630<br>1 590                    | 13<br>14             | 0.964<br>0.965                   | 0.56<br>0.57                   | 317.2<br>318.0                     | 1974<br>1974                 | 1985<br>1984                 | PANALTA SLPETRO<br>PANALTA SLPETRO   |
| 4.10<br>6.43                  | 0.050<br>0.054                   | 0.70<br>0.70                 | 24 340<br>24 200                  | 74<br>71             | 0.913<br>0.880                   | 0.66<br>0.72                   | 2 317.3<br>2 345.8                 | 1958<br>1969                 | 1983<br>1983                 | WCOAST PRODUCTION DECLINE<br>KANNGAZ PANALTA PROGAS  |
| 3.76                          | 0.270                            | 0.75                         | 8 170                             | 47                   | 0.892                            | 0.56                           | 1 092.1                            | 1978                         | 1982                         | PROGAS   |
| 1.34<br>2.56                  | 0.209<br>0.219                   | 0.60<br>0.65                 | 5 680<br>6 460                    | 31<br>40             | 0.892<br>0.883                   | 0.59<br>0.62                   | 673.6<br>905.2                     | 1960<br>1965                 | 1985<br>1985                 | KANNGAZ PANALTA<br>PANALTA   |
| 5.38<br>1.23<br>0.66<br>0.73  | 0.154<br>0.170<br>0.139<br>0.139 | 0.55<br>0.55<br>0.60<br>0.60 | 3 140<br>4 310<br>4 450<br>4 450  | 16<br>17<br>19<br>19 | 0.938<br>0.913<br>0.921<br>0.921 | 0.58<br>0.57<br>0.57<br>0.57   | 355.7<br>487.7<br>487.7<br>487.7   | 1910<br>1904<br>1973<br>1973 | 1983<br>1982<br>1982<br>1982 | PART OF MILK RIV POOL NO.1 PRODUCTION<br>DECLINE<br>PART OF MED HAT POOL NO.1<br>PART OF MED HAT POOL NO.3<br>PART OF MED HAT POOL NO.4                      |
| 1.02<br>1.35<br>2.11<br>11.30 | 0.216<br>0.242<br>0.226<br>0.131 | 0.60<br>0.60<br>0.65<br>0.80 | 5 690<br>6 760<br>8 950<br>10 500 | 27<br>23<br>28<br>46 | 0.899<br>0.867<br>0.848<br>0.810 | 0.57<br>0.59<br>0.61<br>0.80   | 630.0<br>745.9<br>855.5<br>1 214.2 | 1939<br>1971<br>1980<br>1981 | 1982<br>1984<br>1983<br>1983 | PANALTA TCPL<br>PANALTA TCPL PART OF 2WS POOL NO.1<br>TCPL<br>TCPL<br>NONCOMMERCIAL OIL  |
| 1.96                          | 0.170                            | 0.60                         | 5 960                             | 38                   | 0.890                            | 0.64                           | 987.6                              | 1949<br>1949                 | 1984<br>1984                 | CWNGNUL PANALTA PROGAS SLPETRO A&S NORCEN<br>CONCURRENT PRODUCTION GAS FLOOD<br>CWNGNUL PANALTA PROGAS SLPETRO A&S NORCEN<br>CONCURRENT PRODUCTION GAS FLOOD |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE               | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>JOARCAM 048-21W4 (CONTINUED)</b><br>VIKING C SOLN       | 5   | 0.60                     | 0.05                    | 3 <sup>b</sup>   |   |  | 39  |                                      |        |
| VIKING C ASSOC   | 977   | 0.60                     | 0.05                    | 557 <sup>b</sup>   | 24 <sup>b</sup>   | 536  | 39  | 20 866                               | 19 446 |
| ELLERSLIE 03-049-21  | 456   | 0.85                     | 0.05                    | 368  |   | 368  | 36  | 13 226                               | 200    |
| BSL QUARTZ 30-050-22                                       | 414   | 0.85                     | 0.10                    | 316  |   | 316  | 36  | 11 357                               | 200    |
| OTHER  | 2 126   |                          |                         | 1 381  | 77  | 1 304  |   | 47 530                               |        |
| TOTAL-JOARCAM  | 6 937   |                          |                         | 3 819  | 1 210   | 2 609  |   | 96 288                               |        |
| <b>JOFFRE 038-26W4</b><br>UPPER MANNVILLE A                | 393   | 0.85                     | 0.15                    | 284  |   |  | 40  |                                      | 205    |
| UPPER MANNVILLE B  | 73  | 0.65                     | 0.10                    | 43   |   |  | 40  |                                      | 200    |
| BLAIRMORE C  | 466   | 0.85                     | 0.15                    | 337  |   |  | 40  |                                      | 1 485  |
| U MANN A&B, BLAIR C TOTAL                                  | 932   | 0.85                     | 0.15                    | 664  | 410   | 254  | 40  | 10 173                               |        |
| D-2 SOLN   | 3 497   | 0.36                     | 0.60                    | 504  | 440   | 64   | 44  | 2 827                                |        |
| OTHER  | 3 919   |                          |                         | 2 065  | 402   | 1 663  |   | 63 725                               |        |
| TOTAL-JOFFRE   | 8 348   |                          |                         | 3 233  | 1 252   | 1 981  |   | 76 725                               |        |
| <b>JOHN LAKE 055-01W4</b><br>TOTAL-JOHN LAKE               | 731   |                          |                         | 444  | 18  | 426  |   | 16 041                               |        |
| <b>JOHNSON 016-14W4</b><br>MILK RIVER A                    | 535   | 0.70                     | 0.05                    | 356  |   |  | 36 <sup>a</sup>                             |                                      | 5 412  |
| MEDICINE HAT A   | 18  | 0.70                     | 0.03                    | 12   |   |  | 36 <sup>a</sup>                             |                                      | 858    |
| SE ALTA GAS SYS(MU) TOTAL                                  | 553   | 0.70                     | 0.05                    | 368  | 11  | 357  | 36 <sup>a</sup>                             | 12 963                               |        |
| OTHER  | 395   |                          |                         | 275  |   | 275  |   | 10 952                               |        |
| TOTAL-JOHNSON  | 948   |                          |                         | 643  | 11  | 632  |   | 23 915                               |        |
| <b>JOLI FOU (SA) 081-20W4</b><br>TOTAL-JOLI FOU            | 42  |                          |                         | 22   |   | 22   |   | 823                                  |        |
| <b>JOLIET 025-07W4</b><br>TOTAL-JOLIET                     | 113   |                          |                         | 80   |   | 80   |   | 2 995                                |        |
| <b>JOSEPHINE 083-09W6</b><br>KISKATINAW A                  | 2 013   | 0.80                     | 0.05                    | 1 530  | 480   | 1 050  | 38  | 40 089                               | 1 600  |
| OTHER  | 47  |                          |                         | 32   |   | 32   |   | 1 210                                |        |
| TOTAL-JOSEPHINE  | 2 060   |                          |                         | 1 562  | 480   | 1 082  |   | 41 299                               |        |
| <b>JOUSSARD (SA) 074-14W5</b><br>TOTAL-JOUSSARD            | 240   |                          |                         | 166  |   | 166  |   | 6 214                                |        |
| <b>JUDSON (SA) 007-12W4</b><br>TOTAL-JUDSON                | 24  |                          |                         | 16   |   | 16   |   | 599                                  |        |
| <b>JUDY CREEK 063-11W5</b><br>VIKING A SOLN                | 288   | 0.65                     | 0.30                    | 131 <sup>b</sup>   |   |  | 38  |                                      |        |
| VIKING A ASSOC   | 2 753   | 0.91                     | 0.10                    | 2 250 <sup>b</sup>   | 2 101 <sup>b</sup>  | 280  | 38  | 10 587                               | 10 790 |
| BEAVERHILL LAKE A SOLN                                     | 19 240  | 0.42                     | 0.30                    | 5 657  | 4 490   | 1 167  | 41 <sup>a</sup>                             | 47 614                               |        |
| BEAVERHILL LAKE B SOLN                                     | 7 618   | 0.45                     | 0.20                    | 2 742  | 2 119   | 623  | 41 <sup>a</sup>                             | 25 418                               |        |
| OTHER  | 570   |                          |                         | 406  | 117   | 289  |   | 11 053                               |        |
| TOTAL-JUDY CREEK   | 30 469  |                          |                         | 11 186   | 8 827   | 2 359  |   | 94 672                               |        |
| <b>JUDY CREEK SOUTH 062-12W5</b><br>TOTAL-JUDY CREEK SOUTH | 692   |                          |                         | 389  | 52  | 337  |   | 13 217                               |        |
| <b>JUMPBUSH 019-20W4</b><br>BOW ISLAND 020-21              | 558   | 0.75                     | 0.05                    | 397  |   | 397  | 38 <sup>a</sup>                             | 15 011                               | 1 947  |
| OTHER  | 743   |                          |                         | 486  |   | 486  |   | 18 655                               |        |
| TOTAL-JUMPBUSH   | 1 301   |                          |                         | 883  |   | 883  |   | 33 666                               |        |
| <b>JUMPING POUND 025-04W5</b><br>MISSISSIPPIAN             | 6 435   | 0.88                     | 0.17                    | 4 700  |   |  | 39 <sup>a</sup>                             |                                      | 469    |
| MISSISSIPPIAN  | 18 209  | 0.88                     | 0.17                    | 13 300   |   |  | 39  |                                      | 1 485  |
| MISSISSIPPIAN TOTAL  | 24 644  | 0.90                     | 0.15                    | 18 000   | 13 764  | 4 236  | 39 <sup>a</sup>                             | 166 475                              |        |
| OTHER  | 154   |                          |                         | 103  |   | 103  |   | 3 855                                |        |
| TOTAL-JUMPING POUND  | 24 798  |                          |                         | 18 103   | 13 764  | 4 339  |   | 170 330                              |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DISTRIBUTION AND REMARKS   |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |  |
| 0.91                        | 0.184    | 0.50        | 6 000               | 42   | 0.903    | 0.62                           | 985.1                      | 1949         | 1985                     | NUL CWNGNUL PANALTA PROGAS SLPETRO A&S<br>NORCEN CONCURRENT PRODUCTION |
| 17.75                       | 0.210    | 0.65        | 8 620               | 37   | 0.840    | 0.59                           | 1 191.2                    | 1949         | 1985                     | NUL CWNGNUL PANALTA PROGAS SLPETRO A&S<br>NORCEN CONCURRENT PRODUCTION |
| 17.70                       | 0.200    | 0.65        | 8 620               | 39   | 0.860    | 0.60                           | 1 211.6                    | 1979         | 1980                     | NUL CWNGNUL  |
|                             |          |             |                     |      |          |                                |                            | 1960         | 1973                     |  |
| 3.91                        | 0.226    | 0.89        | 14 180              | 68   | 0.780    | 0.78                           | 1 761.0                    | 1967         | 1980                     | MATERIAL BALANCE   |
| 3.35                        | 0.120    | 0.75        | 11 200              | 54   | 0.803    | 0.71                           | 1 784.3                    | 1964         | 1982                     |  |
| 1.68                        | 0.147    | 0.70        | 16 110              | 56   | 0.771    | 0.74                           | 1 825.3                    | 1958         | 1985                     |  |
|                             |          |             |                     |      |          |                                |                            | 1954         | 1984                     | CWNGNUL TCPL   |
|                             |          |             |                     |      |          |                                |                            | 1956         | 1982                     | TCPL   |
| 3.91                        | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.56                           | 355.7                      | 1910         | 1983                     | PART OF MILK RIV POOL NO. 1 PRODUCTION<br>DECLINE                      |
| 0.48                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904         | 1978                     | PART OF MED HAT POOL NO. 1   |
|                             |          |             |                     |      |          |                                |                            | 1904         | 1983                     | TCPL   |
| 9.27                        | 0.130    | 0.70        | 15 210              | 69   | 0.848    | 0.66                           | 1 749.9                    | 1974         | 1984                     | TCPL   |
| 2.01                        | 0.178    | 0.65        | 8 890               | 56   | 0.880    | 0.63                           | 1 387.1                    | 1959         | 1983                     | A&S CWNGNUL MATERIAL BALANCE CONCURRENT<br>PRODUCTION                  |
|                             |          |             |                     |      |          | 0.87                           |                            | 1959         | 1983                     | A&S CWNGNUL MATERIAL BALANCE CONCURRENT<br>PRODUCTION                  |
|                             |          |             |                     |      |          | 0.87                           |                            | 1959         | 1985                     | CWNG A&S   |
|                             |          |             |                     |      |          |                                |                            | 1959         | 1985                     | CWNG PROGAS A&S  |
| 2.69                        | 0.215    | 0.65        | 7 380               | 29   | 0.909    | 0.59                           | 1 134.5                    | 1973         | 1975                     | HOME PROGAS  |
| 38.71                       | 0.079    | 0.90        | 27 410              | 82   | 0.926    | 0.70                           | 3 013.6                    | 1944         | 1984                     | MATERIAL BALANCE   |
| 43.28                       | 0.079    | 0.90        | 27 410              | 82   | 0.926    | 0.70                           | 2 989.5                    | 1944         | 1984                     | MATERIAL BALANCE   |
|                             |          |             |                     |      |          |                                |                            | 1944         | 1983                     | CWNGNUL  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>JUMPING POUND WEST 025-06W5</b>           |   |                          |                         |  |   |  |   |                                      |        |
| RUNDLE C                                     | 22 059  | 0.85                     | 0.20                    | 15 000   | 4 847   | 10 153   | 39a   | 395 256                              | 3 385  |
| RUNDLE A                                     |   | 0.85                     | 0.20                    |  |   |  | 39a   |                                      | 7 891  |
| RUNDLE B                                     |   | 0.85                     | 0.20                    |  |   |  | 39a   |                                      | 2 403  |
| RUNDLE A & B TOTAL                           | 52 941  | 0.85                     | 0.20                    | 35 000   | 14 160  | 21 840   | 39a   | 850 231                              |        |
| PEKISKD 19-026-06                            | 503   | 0.85                     | 0.15                    | 364  |   | 364  | 39  | 14 171                               | 200    |
| TOTAL-JUMPING POUND WEST                     | 75 503  |                          |                         | 51 364   | 19 007  | 32 357   |   | 1 259 658                            |        |
| <b>KAHNTAH (SA) 097-17W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KAHNTAH                                | 65  |                          |                         | 42   |   | 42   |   | 1 577                                |        |
| <b>KAKISA (SA) 117-01W6</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KAKISA                                 | 19  |                          |                         | 13   |   | 13   |   | 511                                  |        |
| <b>KAKUT 075-03W6</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KAKUT                                  | 436   |                          |                         | 308  |   | 308  |   | 11 528                               |        |
| <b>KAKWA 064-05W6</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| KAKWA A CARDIUM A ASSDC                      | 874   | c                        | c                       | 655  |   | 655  | 43a   | 27 975                               | 3 087  |
| OTHER  | 3 732   |                          |                         | 2 103  | 154   | 1 949  |   | 75 284                               |        |
| TOTAL-KAKWA                                  | 4 606   |                          |                         | 2 758  | 154   | 2 604  |   | 103 259                              |        |
| <b>KALELAND (SA) 054-13W4</b>                |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KALELAND                               | 148   |                          |                         | 99   |   | 99   |   | 3 811                                |        |
| <b>KARR 065-03W6</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| BLUESKY A                                    | 14 519  | 0.75                     | 0.10                    | 9 800  | 552   | 9 248  | 38  | 349 667                              | 21 900 |
| OTHER  | 2 747   |                          |                         | 1 791  | 106   | 1 685  |   | 66 245                               |        |
| TOTAL-KARR                                   | 17 266  |                          |                         | 11 591   | 658   | 10 933   |   | 415 912                              |        |
| <b>KAYBOB 064-19W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| NOTIKWIN A                                   | 7 947   | 0.85                     | 0.02                    | 6 620  | 5 230   | 1 390  | 41a   | 57 240                               | 11 766 |
| NOTIKWIN B                                   | 5 172   | 0.88                     | 0.02                    | 4 460  | 4 047   | 413  | 41a   | 17 007                               | 11 214 |
| NOTIKWIN D                                   | 400   | 0.90                     | 0.05                    | 342  |   | 342  | 41a   | 14 084                               | 2 040  |
| LWR GETHING 063-20                           | 748   | 0.75                     | 0.10                    | 505  |   | 505  | 39  | 19 847                               | 1 408  |
| CADOMIN B SOLN                               | 182   | 0.65                     | 0.99                    | 10 <sup>b</sup>  |   |  | 39  |                                      |        |
| CADOMIN B ASSDC                              | 1 919   | 0.85                     | 0.05                    | 1 550 <sup>b</sup>   | 365 <sup>b</sup>  | 1 186  | 39  | 46 195                               | 1 854  |
| CADOMIN J                                    | 352   | 0.90                     | 0.05                    | 301  |   | 301  | 39  | 11 718                               | 200    |
| BEAVERHILL LAKE A SOLN                       | 9 492   | 0.42                     | 0.16                    | 3 350  | 2 325   | 1 025  | 43a   | 43 737                               |        |
| BEAVERHILL LAKE B SOLN                       | 552   | 0.65                     | 0.15                    | 305 <sup>b</sup>   |   |  | 43  |                                      |        |
| BEAVERHILL LAKE B ASSOC                      | 121   | 0.75                     | 0.15                    | 77 <sup>b</sup>  | 91 <sup>b</sup>   | 291  | 43  | 12 417                               | 333    |
| BEAVERHILL LAKE C                            | 1 947   | c                        | c                       | 1 490  | 110   | 1 380  | 41  | 56 704                               | 2 472  |
| OTHER  | 4 439   |                          |                         | 3 103  | 106   | 2 997  |   | 118 165                              |        |
| TOTAL-KAYBOB                                 | 33 271  |                          |                         | 22 104   | 12 274  | 9 830  |   | 397 114                              |        |
| <b>KAYBOB SOUTH 060-18W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 585   | 0.90                     | 0.05                    | 501  | 287   | 214  | 42  | 8 971                                | 1 554  |
| GETHING A                                    | 843   | 0.75                     | 0.05                    | 600  | 240   | 360  | 40  | 14 418                               | 1 409  |
| GETHING B                                    | 1 488   | 0.80                     | 0.10                    | 1 070  | 66  | 1 004  | 40a   | 40 210                               | 2 854  |
| GETHING D                                    | 1 638   | 0.85                     | 0.10                    | 1 253  | 114   | 1 139  | 40a   | 45 617                               | 3 128  |
| CADOMIN A                                    | 1 107   | 0.90                     | 0.05                    | 946  | 424   | 522  | 40a   | 20 906                               | 735    |
| CADOMIN B                                    | 409   | 0.90                     | 0.10                    | 331  |   | 331  | 40a   | 13 257                               | 202    |
| CADOMIN D                                    | 913   | 0.85                     | 0.05                    | 737  | 334   | 403  | 40a   | 16 140                               | 440    |
| CADOMIN F                                    | 541   | 0.85                     | 0.05                    | 434  | 14  | 420  | 40  | 16 821                               | 440    |
| CADOMIN K                                    | 484   | 0.75                     | 0.05                    | 345  | 257   | 88   | 40  | 3 524                                | 200    |
| TRIASSIC A SOLN                              | 4 207   | 0.41                     | 0.25                    | 1 294  | 1 371   | 77   | 43a   | 3 343                                |        |
| TRIASSIC A ASSDC                             | 1 720   | 0.40                     | 0.20                    | 550  | -61   | 611  | 43a   | 26 530                               | 2 502  |
| TRIASSIC B                                   | 2 206   | 0.80                     | 0.15                    | 1 500  | 355   | 1 145  | 42a   | 48 434                               | 1 619  |
| NISKU A                                      | 533   | 0.90                     | 0.20                    | 384  |   | 384  | 43a   | 16 673                               | 480    |
| BEAVERHILL LAKE A                            | 104 424   | c                        | c                       | 36 400   | 11 374  | 25 026   | 40a   | 1 011 050                            | 20 015 |
| OTHER  | 7 413   |                          |                         | 4 949  | 369   | 4 580  |   | 184 485                              |        |
| TOTAL-KAYBOB SOUTH                           | 128 511   |                          |                         | 51 294   | 15 144  | 36 150   |   | 1 463 693                            |        |
| <b>KEHIWIN 059-06W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| GRAND RAPIDS A                               | 619   | 0.75                     | 0.05                    | 441  | 74  | 367  | 37  | 13 737                               | 3 463  |
| OTHER  | 764   |                          |                         | 482  | 104   | 378  |   | 14 149                               |        |
| TOTAL-KEHIWIN                                | 1 383   |                          |                         | 923  | 178   | 745  |   | 27 886                               |        |
| <b>KEHD 011-22W4</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KEHD                                   | 729   |                          |                         | 471  | 191   | 280  |   | 10 595                               |        |
| <b>KELSEY 044-18W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER B                                | 613   | 0.75                     | 0.05                    | 437  | 208   | 229  | 39  | 9 000                                | 4 901  |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18            | 19                       | 20                                   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|---------------|--------------------------|--------------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>FILED | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS              |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |               |                          |                                      |
| 48.75                       | 0.061    | 0.85        | 29 470              | 83   | 0.913    | 0.74                           | 3 499.5                    | 1967          | 1983                     | CWNGNUL TCPL                         |
| 35.87                       | 0.070    | 0.85        | 29 510              | 79   | 0.916    | 0.70                           | 3 313.1                    | 1961          | 1984                     | MATERIAL BALANCE TOP/BASE TVD        |
| 34.28                       | 0.068    | 0.85        | 29 600              | 88   | 0.925    | 0.75                           | 3 588.5                    | 1963          | 1984                     | MATERIAL BALANCE TOP/BASE TVD        |
|                             |          |             |                     |      |          |                                |                            | 1961          | 1984                     | CWNGNUL TCPL                         |
| 13.41                       | 0.100    | 0.75        | 30 561              | 104  | 0.922    | 0.74                           | 3 430.1                    | 1977          | 1979                     | CWNGNUL TOP/BASE TVD                 |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
| 1.33                        | 0.134    | 0.70        | 20 990              | 55   | 0.809    | 0.76                           | 1 753.4                    | 1978          | 1985                     | TCPL GAS CYCLING                     |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
| 3.91                        | 0.124    | 0.65        | 20 290              | 69   | 0.802    | 0.77                           | 2 301.1                    | 1968          | 1984                     | KANNGAZ PANALIA SLPETRO TCPL         |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
| 4.08                        | 0.200    | 0.65        | 10 550              | 40   | 0.835    | 0.61                           | 1 434.4                    | 1957          | 1980                     | A&S MATERIAL BALANCE                 |
| 3.08                        | 0.159    | 0.65        | 9 790               | 56   | 0.879    | 0.61                           | 1 470.4                    | 1957          | 1980                     | A&S MATERIAL BALANCE                 |
| 1.77                        | 0.185    | 0.65        | 9 580               | 63   | 0.879    | 0.61                           | 1 539.2                    | 1958          | 1980                     | A&S                                  |
| 3.63                        | 0.146    | 0.70        | 14 540              | 75   | 0.830    | 0.68                           | 1 874.2                    | 1981          | 1985                     |                                      |
|                             |          |             |                     |      |          |                                |                            | 1957          | 1983                     | CONCURRENT PRODUCTION                |
| 6.16                        | 0.160    | 0.70        | 15 240              | 71   | 0.838    | 0.65                           | 1 767.8                    | 1957          | 1983                     | CONCURRENT PRODUCTION                |
| 10.49                       | 0.160    | 0.70        | 15 240              | 71   | 0.838    | 0.65                           | 1 784.3                    | 1960          | 1975                     |                                      |
|                             |          |             |                     |      |          | 0.80                           |                            | 1957          | 1975                     | A&S                                  |
|                             |          |             |                     |      |          | 0.74                           |                            | 1961          | 1979                     | A&S CONCURRENT PRODUCTION            |
| 3.10                        | 0.065    | 0.75        | 30 680              | 108  | 0.948    | 0.74                           | 2 927.6                    | 1961          | 1979                     | A&S CONCURRENT PRODUCTION            |
| 6.55                        | 0.065    | 0.75        | 30 540              | 108  | 0.925    | 1.06                           | 2 957.8                    | 1961          | 1981                     | A&S GAS CYCLING                      |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
| 3.42                        | 0.144    | 0.60        | 10 000              | 66   | 0.864    | 0.66                           | 1 712.9                    | 1960          | 1985                     | A&S MATERIAL BALANCE                 |
| 4.01                        | 0.139    | 0.70        | 14 790              | 83   | 0.879    | 0.63                           | 2 153.7                    | 1959          | 1983                     | CNG PANALIA PROGAS                   |
| 3.79                        | 0.137    | 0.75        | 14 140              | 80   | 0.851    | 0.67                           | 1 970.2                    | 1969          | 1982                     | CNG PANALIA PROGAS TCPL              |
| 4.40                        | 0.124    | 0.65        | 14 110              | 57   | 0.816    | 0.67                           | 2 101.1                    | 1977          | 1983                     | PANALIA PROGAS                       |
| 7.16                        | 0.148    | 0.65        | 15 380              | 83   | 0.870    | 0.64                           | 2 045.2                    | 1958          | 1973                     | DOMEDOW A&S                          |
| 5.79                        | 0.148    | 0.65        | 16 580              | 84   | 0.874    | 0.63                           | 2 129.0                    | 1968          | 1973                     | PROGAS DOMEDOW                       |
| 8.02                        | 0.150    | 0.65        | 15 130              | 80   | 0.864    | 0.64                           | 2 000.7                    | 1967          | 1983                     | A&S MATERIAL BALANCE                 |
| 11.10                       | 0.128    | 0.50        | 17 790              | 69   | 0.856    | 0.63                           | 2 307.3                    | 1976          | 1976                     | TCPL                                 |
| 6.40                        | 0.148    | 0.65        | 14 630              | 80   | 0.865    | 0.64                           | 2 058.1                    | 1963          | 1982                     | PRODUCTION DECLINE                   |
|                             |          |             |                     |      |          | 0.82                           |                            | 1962          | 1984                     | A&S                                  |
| 3.87                        | 0.127    | 0.75        | 17 060              | 73   | 0.752    | 0.82                           | 2 066.0                    | 1962          | 1984                     | A&S                                  |
| 3.59                        | 0.114    | 0.75        | 19 310              | 91   | 0.849    | 0.73                           | 2 382.1                    | 1976          | 1984                     | DOMEDOW PROGAS TCPL MATERIAL BALANCE |
| 12.19                       | 0.050    | 0.80        | 28 270              | 108  | 0.930    | 0.79                           | 2 907.7                    | 1958          | 1984                     | A&S                                  |
| 31.12                       | 0.079    | 0.80        | 31 720              | 115  | 0.880    | 1.01                           | 3 219.3                    | 1961          | 1985                     | A&S CNG GAS CYCLING                  |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
| 2.45                        | 0.304    | 0.80        | 2 840               | 15   | 0.935    | 0.57                           | 403.2                      | 1971          | 1983                     | MIP TCPL                             |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
|                             |          |             |                     |      |          |                                |                            |               |                          |                                      |
| 3.01                        | 0.276    | 0.50        | 2 870               | 16   | 0.938    | 0.57                           | 429.8                      | 1974          | 1985                     | LOC U TCPL                           |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>KELSEY 044-18W4 (CONTINUED)</b>           |   |                          |                         |  |   |  |   |                                      |        |
| OTHER  | 1 242   |                          |                         | 777  | 30  | 747  |   | 28 878                               |        |
| TOTAL-KELSEY                                 | 1 855   |                          |                         | 1 214  | 238   | 976  |   | 37 878                               |        |
| <b>KEMP (SA) 098-23W5</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KEMP                                   | 14  |                          |                         | 8  |   | 8  |   | 320                                  |        |
| <b>KENT 062-02W4</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| GRAND RAPIDS B                               | 659   | 0.70                     | 0.05                    | 438  | 49  | 389  | 37  | 14 560                               | 4 638  |
| OTHER  | 273   |                          |                         | 152  | 45  | 107  |   | 4 002                                |        |
| TOTAL-KENT                                   | 932   |                          |                         | 590  | 94  | 496  |   | 18 562                               |        |
| <b>KETCHUM 006-06W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KETCHUM                                | 160   |                          |                         | 112  | 20  | 92   |   | 3 462                                |        |
| <b>KETTLE (SA) 082-07W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KETTLE                                 | 20  |                          |                         | 10   |   | 10   |   | 378                                  |        |
| <b>KIDNEY 091-04W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KIDNEY                                 | 13  |                          |                         | 6  |   | 6  |   | 225                                  |        |
| <b>KILLAM 043-10W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| UPPER & MID VIKING A                         | 1 924   | 0.75                     | 0.03                    | 1 400  | 1 000   | 400  | 38  | 15 124                               | 64 713 |
| ELLERSLIE C                                  | 554   | 0.80                     | 0.05                    | 421  | 81  | 340  | 37  | 12 726                               | 2 815  |
| OTHER  | 8 456   |                          |                         | 5 594  | 1 049   | 4 545  |   | 170 526                              |        |
| TOTAL-KILLAM                                 | 10 934  |                          |                         | 7 415  | 2 130   | 5 285  |   | 198 376                              |        |
| <b>KILLAM NORTH 044-13W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| UPPER & MID VIKING A                         |   | 0.70                     | 0.03                    |  |   |  | 38  |                                      | 55 971 |
| BASAL MANNVILLE C                            |   | 0.70                     | 0.03                    |  |   |  | 38  |                                      | 202    |
| NISKU A                                      |   | 0.70                     | 0.03                    |  |   |  | 37  |                                      | 32     |
| U&M V A, BMN C & NIS A TOTAL                 | 1 620   | 0.70                     | 0.05                    | 1 100  | 796   | 304  | 38  | 11 494                               |        |
| OTHER  | 6 614   |                          |                         | 4 388  | 852   | 3 536  |   | 132 383                              |        |
| TOTAL-KILLAM NORTH                           | 8 234   |                          |                         | 5 488  | 1 548   | 3 840  |   | 143 877                              |        |
| <b>KILSYTH 065-04W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KILSYTH                                | 40  |                          |                         | 25   |   | 25   |   | 935                                  |        |
| <b>KIMIWAN 079-20W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KIMIWAN                                | 267   |                          |                         | 181  | 42  | 139  |   | 5 567                                |        |
| <b>KINGMAN 049-19W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KINGMAN                                | 954   |                          |                         | 621  | 25  | 596  |   | 23 221                               |        |
| <b>KINMUNDY 025-09W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KINMUNDY                               | 49  |                          |                         | 33   |   | 33   |   | 1 235                                |        |
| <b>KIRBY 074-05W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE A                            | 3 509   | 0.60                     | 0.05                    | 2 000  | 41  | 1 959  | 38  | 74 070                               | 28 686 |
| UPPER MANNVILLE C                            | 2 927   | 0.60                     | 0.05                    | 1 670  | 32  | 1 638  | 38  | 61 933                               | 45 212 |
| UPPER MANNVILLE D                            | 2 298   | 0.60                     | 0.05                    | 1 310  | 275   | 1 035  | 38  | 39 133                               | 15 724 |
| LOWER MANNVILLE A                            | 8 844   | 0.50                     | 0.05                    | 4 200  | 1 353   | 2 847  | 37  | 105 481                              | 36 592 |
| LOWER MANNVILLE B                            | 515   | 0.70                     | 0.05                    | 343  |   | 343  | 38  | 12 969                               | 6 185  |
| OTHER  | 2 181   |                          |                         | 1 154  | 64  | 1 090  |   | 41 002                               |        |
| TOTAL-KIRBY                                  | 20 274  |                          |                         | 10 677   | 1 765   | 8 912  |   | 334 588                              |        |
| <b>KIRKWALL 027-05W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 749   | 0.70                     | 0.05                    | 498  | 472   | 26   | 37  | 954                                  | 5 255  |
| VIKING B                                     | 692   | 0.65                     | 0.05                    | 428  | 368   | 60   | 37  | 2 201                                | 3 459  |
| OTHER  | 233   |                          |                         | 162  | 7   | 155  |   | 5 761                                |        |
| TOTAL-KIRKWALL                               | 1 674   |                          |                         | 1 088  | 847   | 241  |   | 8 916                                |        |
| <b>KISKIU (SA) 057-02W6</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-KISKIU                                 | 198   |                          |                         | 141  |   | 141  |   | 5 278                                |        |
| <b>KITSIM 017-16W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| MILK RIVER A                                 | 188   | 0.70                     | 0.05                    | 125  |   |  | 36a   |                                      | 2 970  |
| MEDICINE HAT A                               | 397   | 0.70                     | 0.03                    | 270  |   |  | 36  |                                      | 6 077  |
| SE ALTA GAS SYS(MU) TOTAL                    | 585   | 0.70                     | 0.05                    | 395  |   | 395  | 36  | 14 342                               |        |
| OTHER  | 145   |                          |                         | 105  | 5   | 100  |   | 3 806                                |        |
| TOTAL-KITSIM                                 | 730   |                          |                         | 500  | 5   | 495  |   | 18 148                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18               | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>REVIEWED | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS                          |
| m                           | frac     | frac        | kPa                 | OC   | frac     | frac                           | m                          |                  |                          |  |
| 2.49                        | 0.310    | 0.80        | 2 260               | 21   | 0.950    | 0.57                           | 279.6                      | 1965             | 1983                     | PANALTA  |
| 1.47                        | 0.160    | 0.35        | 5 500               | 24   | 0.890    | 0.61                           | 714.5                      | 1917             | 1985                     | PANALTA TCPL PART OF VIK POOL NO.2               |
| 1.75                        | 0.254    | 0.65        | 6 830               | 45   | 0.897    | 0.62                           | 916.9                      | 1957             | 1982                     | MATERIAL BALANCE CONCURRENT PRODUCTION<br>TCPL   |
| 1.15                        | 0.160    | 0.35        | 5 500               | 24   | 0.890    | 0.61                           | 714.5                      | 1917             | 1985                     | PART OF VIK POOL NO.2 MATERIAL BALANCE           |
| 0.91                        | 0.240    | 0.50        | 6 070               | 28   | 0.890    | 0.60                           | 827.5                      | 1976             | 1982                     | PART OF VIK POOL NO.2 MATERIAL BALANCE           |
| 3.30                        | 0.200    | 0.65        | 5 240               | 28   | 0.906    | 0.60                           | 832.2                      | 1976             | 1982                     | PART OF VIK POOL NO.2 MATERIAL BALANCE           |
|                             |          |             |                     |      |          |                                |                            | 1917             | 1984                     | PANALTA TCPL PART OF VIK POOL NO.2               |
| 3.48                        | 0.326    | 0.65        | 1 610               | 13   | 0.965    | 0.57                           | 288.3                      | 1977             | 1981                     | PANALTA PROGAS                                   |
| 2.14                        | 0.310    | 0.65        | 1 490               | 18   | 0.970    | 0.56                           | 312.7                      | 1977             | 1983                     | PANALTA PROGAS                                   |
| 4.15                        | 0.322    | 0.50        | 2 155               | 20   | 0.956    | 0.57                           | 366.7                      | 1977             | 1983                     | PANALTA PROGAS                                   |
| 5.68                        | 0.308    | 0.65        | 2 110               | 22   | 0.957    | 0.57                           | 410.4                      | 1977             | 1984                     | PANALTA PROGAS                                   |
| 1.78                        | 0.307    | 0.70        | 2 170               | 24   | 0.955    | 0.57                           | 464.3                      | 1978             | 1984                     | PANALTA PROGAS                                   |
| 1.19                        | 0.300    | 0.60        | 6 570               | 31   | 0.892    | 0.58                           | 796.6                      | 1968             | 1985                     | DOMEDOW PANALTA TCPL PRODUCTION DECLINE          |
| 1.88                        | 0.290    | 0.55        | 6 600               | 31   | 0.889    | 0.58                           | 757.5                      | 1972             | 1985                     | PRODUCTION DECLINE                               |
| 2.50                        | 0.154    | 0.55        | 3 140               | 16   | 0.938    | 0.58                           | 355.7                      | 1910             | 1983                     | PART OF MILK RIV POOL NO.1 PRODUCTION<br>DECLINE |
| 1.51                        | 0.170    | 0.55        | 4 310               | 17   | 0.913    | 0.57                           | 487.7                      | 1904             | 1981                     | PART OF MED HAT POOL NO.1                        |
|                             |          |             |                     |      |          |                                |                            | 1904             | 1983                     | PROGAS TCPL                                      |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE                         | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9              |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|----------------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA           |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |                |
| KITTY 085-12W5<br>TOTAL-KITTY  | 34  |                          |                         | 23   |   | 23   |   | 887                                  |                |
| KIYA (SA) 096-24W5<br>TOTAL-KIYA                                     | 21  |                          |                         | 14   |   | 14   |   | 550                                  |                |
| KLESKUN (SA) 072-02W6<br>TOTAL-KLESKUN                               | 27  |                          |                         | 19   |   | 19   |   | 711                                  |                |
| KNAPPEN 001-11W4<br>SUNBURST 06-002-11<br>OTHER<br>TOTAL-KNAPPEN     | 532<br>529<br>1 061   | 0.80                     | 0.05                    | 404<br>359<br>763  | 110<br>110  | 404<br>249<br>653  | 37  | 15 122<br>9 318<br>24 440            | 200            |
| KNEEHILL (SA) 036-26W4<br>TOTAL-KNEEHILL                             | 292   |                          |                         | 167  |   | 167  |   | 6 446                                |                |
| KNELLER 049-23W4<br>TOTAL-KNELLER                                    | 527   |                          |                         | 328  | 215   | 113  |   | 4 229                                |                |
| KNOBHILL 046-02W5<br>TOTAL-KNOBHILL                                  | 180   |                          |                         | 122  | 54  | 68   |   | 2 800                                |                |
| KNOPCIK 074-11W6<br>DDE CREEK A<br>PADDY A<br>OTHER<br>TOTAL-KNOPCIK | 740<br>835<br>1 395<br>2 970                                    | 0.75<br>0.75             | 0.10<br>0.10            | 500<br>563<br>887<br>1 950   | 119<br>30<br>88<br>237  | 381<br>533<br>799<br>1 713   | 37<br>38                                    | 14 261<br>20 350<br>30 364<br>64 975 | 3 036<br>5 303 |
| KOTCHO (SA) 112-11W6<br>TOTAL-KOTCHO                                 | 3   |                          |                         | 2  |   | 2  |   | 80                                   |                |
| LAC LA BICHE 067-13W4<br>TOTAL-LAC LA BICHE                          | 288   |                          |                         | 179  | 134   | 45   |   | 1 699                                |                |
| LACOMBE 040-26W4<br>TOTAL-LACOMBE                                    | 437   |                          |                         | 307  | 136   | 171  |   | 6 677                                |                |
| LAIT 001-10W4<br>LOWER MANNVILLE A<br>OTHER<br>TOTAL-LAIT            | 363<br>705<br>1 068   | 0.90                     | 0.05                    | 310<br>497<br>807  | 178<br>117<br>295   | 132<br>380<br>512  | 38  | 4 991<br>14 368<br>19 359            | 800            |
| LAMBERT 051-22W5<br>D-3 A<br>TOTAL-LAMBERT                           | 3 922<br>3 922  | 0.85                     | 0.40                    | 2 000<br>2 000   | 228<br>228  | 1 772<br>1 772   | 39  | 69 640<br>69 640                     | 320            |
| LAMONT 053-19W4<br>TOTAL-LAMONT                                      | 78  |                          |                         | 50   |   | 50   |   | 1 934                                |                |
| LANAWAY 036-03W5<br>MANNVILLE ASSOC<br>OTHER<br>TOTAL-LANAWAY        | 509<br>1 574<br>2 083   | 0.70                     | 0.15                    | 303<br>911<br>1 214  | 39<br>39  | 303<br>872<br>1 175  | 41  | 12 478<br>35 490<br>47 968           | 748            |
| LARNE 116-03W6<br>TOTAL-LARNE  | 655   |                          |                         | 463  |   | 463  |   | 18 760                               |                |
| LATHOM 020-18W4<br>BOW ISLAND A<br>OTHER<br>TOTAL-LATHOM             | 600<br>2 823<br>3 423   | 0.85                     | 0.05                    | 485<br>1 831<br>2 316  | 206<br>438<br>644   | 279<br>1 393<br>1 672  | 39  | 10 861<br>53 483<br>64 344           | 200            |
| LATHROP (SA) 088-07W6<br>TOTAL-LATHROP                               | 78  |                          |                         | 48   |   | 48   |   | 1 797                                |                |
| LATOR 063-02W6<br>WABAMUN 29-062-03<br>OTHER<br>TOTAL-LATOR          | 977<br>602<br>1 579   | 0.75                     | 0.35                    | 476<br>435<br>911  |   | 476<br>435<br>911  | 40  | 19 064<br>17 107<br>36 171           | 200            |
| LAWRENCE 041-12W5<br>TOTAL-LAWRENCE                                  | 683   |                          |                         | 430  |   | 430  |   | 17 708                               |                |



| 10                          | 11             | 12           | 13                  | 14       | 15             | 16                             | 17                         | 18           | 19                     | 20                                      |
|-----------------------------|----------------|--------------|---------------------|----------|----------------|--------------------------------|----------------------------|--------------|------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY       | GAS<br>SATN  | INITIAL<br>PRESSURE | TEMP     | COMPRESS       | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE<br>LAST<br>REVIEW | DISPOSITION AND REMARKS                 |
| m                           | frac           | frac         | kPa                 | OC       | frac           | frac                           | m                          |              |                        |   |
| 15.50                       | 0.320          | 0.85         | 5 820               | 23       | 0.886          | 0.59                           | 742.8                      | 1981         | 1983                   |   |
| 2.67<br>1.46                | 0.187<br>0.130 | 0.65<br>0.70 | 6 210<br>11 620     | 39<br>58 | 0.870<br>0.844 | 0.66<br>0.65                   | 891.8<br>1 382.9           | 1964<br>1974 | 1984<br>1978           | LOC U CWNGNUL PANALTA PROGAS<br>PANALTA |
| 3.86                        | 0.250          | 0.60         | 7 310               | 33       | 0.870          | 0.58                           | 843.4                      | 1969         | 1973                   | CMG                                     |
| 66.80                       | 0.068          | 0.90         | 42 660              | 123      | 1.023          | 0.81                           | 4 430.8                    | 1979         | 1981                   | PANALTA                                 |
| 4.73                        | 0.110          | 0.75         | 17 140              | 68       | 0.820          | 0.86                           | 2 234.7                    | 1979         | 1983                   | A&S                                     |
| 13.88                       | 0.210          | 0.55         | 8 530               | 36       | 0.876          | 0.59                           | 1 019.7                    | 1972         | 1985                   | TOPL MATERIAL BALANCE                   |
| 22.50                       | 0.095          | 0.85         | 38 910              | 135      | 1.009          | 0.81                           | 3 956.0                    | 1978         | 1984                   | BER                                     |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>LEAHURST 039-18W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER B                                | 786   | 0.60                     | 0.05                    | 448  | 14  | 434  | 37  | 16 019                               | 3 161  |
| OTHER  | 4 181   |                          |                         | 2 696  | 167   | 2 529  |   | 107 482                              |        |
| TOTAL-LEAHURST                               | 4 967   |                          |                         | 3 144  | 181   | 2 963  |   | 123 501                              |        |
| <b>LEAMAN 055-12W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| LOWER MANNVILLE F                            | 732   | 0.85                     | 0.10                    | 560  | 329   | 231  | 40  | 9 252                                | 1 668  |
| NORDEGG B                                    | 1 099   | 0.85                     | 0.10                    | 841  |   | 841  | 42  | 35 574                               | 1 745  |
| OTHER  | 1 936   |                          |                         | 1 359  | 187   | 1 172  |   | 48 044                               |        |
| TOTAL-LEAMAN                                 | 3 767   |                          |                         | 2 760  | 516   | 2 244  |   | 92 870                               |        |
| <b>LECKIE 019-17W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| MILK RIVER A                                 | 549   | 0.70                     | 0.05                    | 365  |   |  | 36a   |                                      | 5 874  |
| MEDICINE HAT A                               | 201   | 0.70                     | 0.03                    | 137  |   |  | 36  |                                      | 3 440  |
| SE ALTA GAS SYS (MU) TOTAL                   | 750   | 0.70                     | 0.05                    | 502  | 19  | 483  | 36a   | 17 538                               |        |
| OTHER  | 133   |                          |                         | 93   | 77  | 16   |   | 650                                  |        |
| TOTAL-LECKIE                                 | 883   |                          |                         | 595  | 96  | 499  |   | 18 188                               |        |
| <b>LEDDY 084-25W5</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-LEDDY                                  | 66  |                          |                         | 41   |   | 41   |   | 1 520                                |        |
| <b>LEDUC-WOODBEND 050-26W4</b>               |   |                          |                         |  |   |  |   |                                      |        |
| ELLERSLIE 051-26 ASSOC                       | 885   | 0.85                     | 0.05                    | 715  |   | 715  | 44  | 31 582                               | 1 785  |
| BLAIRMORE W                                  | 318   | 0.85                     | 0.10                    | 243  |   |  | 44  |                                      | 200    |
| BLAIRMORE X                                  | 310   | 0.85                     | 0.10                    | 236  |   |  | 44  |                                      | 200    |
| BLAIRMORE W & X TOTAL                        | 628   | 0.85                     | 0.10                    | 479  | 208   | 271  | 44  | 11 970                               |        |
| BASAL QUARTZ 049-25                          | 712   | 0.90                     | 0.05                    | 608  |   | 608  | 38  | 23 213                               | 1 740  |
| D-2 B SOLN                                   | 1 225   | 0.75                     | 0.50                    | 460  | 411   | 49   | 44  | 2 164                                |        |
| D-2 A SOLN                                   | 3 761   | 0.62                     | 0.30                    | 1 632b   |   |  | 44  |                                      |        |
| D-2 A ASSOC                                  | 1 031   | 0.85                     | 0.15                    | 744b   | 1 989b  | 387  | 44  | 17 094                               | 3 954  |
| D-3 A SOLN                                   | 6 017   | 0.63                     | 0.30                    | 2 654b   |   |  | 44  |                                      |        |
| D-3 A ASSOC                                  | 11 551  | 0.89                     | 0.15                    | 8 730b   | 2 975b  | 8 409  | 44  | 371 426                              | 6 985  |
| OTHER  | 8 103   |                          |                         | 5 199  | 1 340   | 3 859  |   | 165 387                              |        |
| TOTAL-LEDUC-WOODBEND                         | 33 913  |                          |                         | 21 221   | 6 923   | 14 298   |   | 622 836                              |        |
| <b>LEECH (SA) 060-09W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-LEECH                                  | 8   |                          |                         | 5  |   | 5  |   | 189                                  |        |
| <b>LEEDALE 042-04W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| GLAUCONITIC A                                | 2 111   | 0.70                     | 0.10                    | 1 330  | 90  | 1 240  | 40a   | 50 133                               | 6 765  |
| PEKISKO A                                    | 1 356   | 0.80                     | 0.15                    | 922  | 38  | 884  | 40a   | 35 740                               | 2 613  |
| BANFF A                                      | 506   | 0.85                     | 0.15                    | 366  | 226   | 140  | 40  | 5 660                                | 906    |
| OTHER  | 2 410   |                          |                         | 1 637  | 41  | 1 596  |   | 62 327                               |        |
| TOTAL-LEEDALE                                | 6 383   |                          |                         | 4 255  | 395   | 3 860  |   | 153 860                              |        |
| <b>LEGAL 057-25W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-LEGAL                                  | 184   |                          |                         | 116  | 73  | 43   |   | 1 669                                |        |
| <b>LEISMER 077-09W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| CLEARWATER A                                 | 14 000  | 0.60                     | 0.05                    | 7 980  | 3 261   | 4 719  | 37  | 176 632                              | 72 073 |
| OTHER  | 868   |                          |                         | 454  |   | 454  |   | 16 991                               |        |
| TOTAL-LEISMER                                | 14 868  |                          |                         | 8 434  | 3 261   | 5 173  |   | 193 623                              |        |
| <b>LELAND (SA) 059-26W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-LELAND                                 | 44  |                          |                         | 30   |   | 30   |   | 1 123                                |        |
| <b>LEMING 065-04W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-LEMING                                 | 1 690   |                          |                         | 987  | 457   | 530  |   | 19 831                               |        |
| <b>LENNOX (SA) 045-02W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-LENNOX                                 | 66  |                          |                         | 45   |   | 45   |   | 1 701                                |        |
| <b>LED 035-17W4</b>                          |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER A                                | 439   | 0.80                     | 0.05                    | 334  | 28  | 306  | 37  | 11 454                               | 4 122  |
| LOWER MANNVILLE A ASSOC                      | 2 645   | 0.80                     | 0.05                    | 2 010  | 738   | 1 272  | 41  | 52 381                               | 4 506  |
| OTHER  | 498   |                          |                         | 302  | 33  | 269  |   | 10 559                               |        |
| TOTAL-LED                                    | 3 582   |                          |                         | 2 646  | 799   | 1 847  |   | 74 394                               |        |
| <b>LEOPARD 009-20W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-LEOPARD                                | 42  |                          |                         | 20   | 18  | 2  |   | 73                                   |        |



| 10                          | 11       | 12          | 13                  | 14   | 15                    | 16                             | 17                         | 18           | 19                      | 20                                     |
|-----------------------------|----------|-------------|---------------------|------|-----------------------|--------------------------------|----------------------------|--------------|-------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | LOW PRESS<br>COMBRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DEEL<br>YEAR | DATE<br>WATT<br>REVISED | SUMMARY AND REMARKS                    |
| m                           | frac     | frac        | kPa                 | °C   | frac                  | frac                           | m                          |              |                         |  |
| 4.74                        | 0.263    | 0.65        | 3 000               | 22   | 0.942                 | 0.57                           | 610.1                      | 1969         | 1985                    |  |
| 2.31                        | 0.150    | 0.70        | 15 550              | 44   | 0.771                 | 0.67                           | 1 792.1                    | 1912         | 1985                    | TCPL                                   |
| 7.14                        | 0.121    | 0.60        | 12 070              | 62   | 0.843                 | 0.66                           | 1 638.2                    | 1978         | 1984                    | PROGAS TCPL                            |
| 3.70                        | 0.154    | 0.55        | 3 140               | 16   | 0.938                 | 0.58                           | 355.7                      | 1910         | 1983                    | PART OF MILK RIV POOL NO. 1 PRODUCTION |
| 1.35                        | 0.170    | 0.55        | 4 310               | 17   | 0.913                 | 0.57                           | 487.7                      | 1904         | 1982                    | DECLINE                                |
|                             |          |             |                     |      |                       |                                |                            | 1911         | 1983                    | PART OF MED HAT POOL NO. 1             |
|                             |          |             |                     |      |                       |                                |                            |              |                         | TCPL                                   |
| 3.81                        | 0.180    | 0.70        | 10 000              | 55   | 0.840                 | 0.69                           | 1 316.7                    | 1948         | 1984                    | PANALTA                                |
| 7.71                        | 0.200    | 0.80        | 11 380              | 41   | 0.800                 | 0.69                           | 1 286.6                    | 1951         | 1977                    |  |
| 8.33                        | 0.180    | 0.80        | 11 380              | 41   | 0.800                 | 0.69                           | 1 342.9                    | 1951         | 1977                    |  |
|                             |          |             |                     |      |                       |                                |                            | 1951         | 1977                    |  |
| 2.23                        | 0.200    | 0.70        | 10 340              | 49   | 0.792                 | 0.71                           | 1 353.3                    | 1951         | 1973                    |  |
|                             |          |             |                     |      |                       | 0.74                           |                            | 1950         | 1985                    | LOC U                                  |
|                             |          |             |                     |      |                       | 0.74                           |                            | 1947         | 1982                    | LOC U GPP                              |
| 12.56                       | 0.020    | 0.80        | 12 290              | 66   | 0.800                 | 0.74                           | 1 539.2                    | 1947         | 1982                    | LOC U GPP                              |
| 18.23                       | 0.080    | 0.86        | 13 060              | 67   | 0.830                 | 0.81                           | 1 609.3                    | 1947         | 1983                    | LOC U CONCURRENT PRODUCTION            |
|                             |          |             |                     |      |                       |                                |                            | 1947         | 1983                    | LOC U CONCURRENT PRODUCTION            |
| 2.89                        | 0.110    | 0.55        | 16 920              | 64   | 0.800                 | 0.70                           | 2 060.1                    | 1970         | 1982                    | PROGAS TCPL                            |
| 4.30                        | 0.087    | 0.80        | 18 200              | 84   | 0.836                 | 0.71                           | 2 138.5                    | 1970         | 1984                    | PROGAS TCPL                            |
| 3.83                        | 0.088    | 0.75        | 18 885              | 57   | 0.736                 | 0.80                           | 2 110.4                    | 1979         | 1982                    | TCPL                                   |
| 4.92                        | 0.330    | 0.60        | 1 980               | 21   | 0.961                 | 0.56                           | 269.8                      | 1974         | 1984                    | DOMEDOW PANALTA PROGAS                 |
| 2.12                        | 0.263    | 0.55        | 3 270               | 18   | 0.920                 | 0.63                           | 527.9                      | 1973         | 1983                    | PANALTA SLPETRO TCPL                   |
| 4.97                        | 0.195    | 0.70        | 8 030               | 35   | 0.857                 | 0.62                           | 1 125.7                    | 1971         | 1983                    | PANALTA TCPL CONCURRENT PRODUCTION     |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE                  | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| LEPINE 064-03W5<br>TOTAL-LEPINE                               | 80  |                          |                         | 52   |   | 52   |   | 1 927                                |        |
| LESSARD (SA) 124-17W5<br>TOTAL-LESSARD                        | 7   |                          |                         | 5  |   | 5  |   | 206                                  |        |
| LETHBRIDGE 008-21W4<br>TOTAL-LETHBRIDGE                       | 19  |                          |                         | 14   |   | 14   |   | 529                                  |        |
| LIEGE 093-21W4  |   |                          |                         |  |   |  |   |                                      |        |
| WABISKAW B  | 1 026   | 0.50                     | 0.05                    | 487  | 10  | 477  | 37  | 17 496                               | 16 046 |
| WABISKAW A  | 1 285   | 0.50                     | 0.05                    | 611  |   |  | 37  |                                      | 22 038 |
| GROSMONT A  | 6 581   | 0.40                     | 0.05                    | 2 500  |   |  | 38  |                                      | 67 154 |
| WBSK A & GROSMONT A TOTAL                                     | 7 866   | 0.40                     | 0.05                    | 3 111  | 445   | 2 666  | 38  | 101 788                              |        |
| MCMURRAY A  | 1 200   | 0.50                     | 0.05                    | 570  | 15  | 555  | 37  | 20 357                               | 24 435 |
| NISKU-U IRE-GROSMNT A   | 4 500   | 0.40                     | 0.05                    | 1 710  | 37  | 1 673  | 37  | 62 001                               | 86 210 |
| LEDUC A   | 1 397   | 0.50                     | 0.05                    | 664  | 154   | 510  | 37  | 18 901                               | 20 040 |
| OTHER   | 1 027   |                          |                         | 515  | 22  | 493  |   | 18 220                               |        |
| TOTAL-LIEGE   | 17 016  |                          |                         | 7 057  | 683   | 6 374  |   | 238 763                              |        |
| LIMESTONE 033-10W5  |   |                          |                         |  |   |  |   |                                      |        |
| RUNDLE C  | 803   | 0.60                     | 0.15                    | 410  | 107   | 303  | 39  | 11 796                               | 440    |
| RUNDLE D  | 1 029   | 0.85                     | 0.20                    | 700  | 149   | 551  | 39  | 21 450                               | 530    |
| RUNDLE A  | 9 688   | 0.80                     | 0.20                    | 6 200  |   |  | 39  |                                      | 2 000  |
| RUNDLE B  | 1 719   | 0.80                     | 0.20                    | 1 100  |   |  | 39  |                                      | 1 538  |
| RUNDLE A & B TOTAL  | 11 407  | 0.80                     | 0.20                    | 7 300  | 1 472   | 5 828  | 39  | 226 884                              |        |
| RUNDLE E  | 2 143   | 0.70                     | 0.20                    | 1 200  |   |  | 39  |                                      | 688    |
| RUNDLE F  | 347   | 0.70                     | 0.20                    | 194  |   |  | 39  |                                      | 716    |
| RUNDLE E & F TOTAL  | 2 490   | 0.70                     | 0.20                    | 1 394  | 154   | 1 240  | 39  | 48 273                               |        |
| TURNER VALLEY 05-035-11                                       | 505   | 0.80                     | 0.15                    | 343  |   | 343  | 38  | 12 969                               | 200    |
| WABAMUN A   | 2 311   | 0.75                     | 0.25                    | 1 300  | 425   | 875  | 37  | 32 095                               | 1 163  |
| WABAMUN B   | 2 584   | 0.50                     | 0.35                    | 840  | 73  | 767  | 37  | 28 134                               | 1 168  |
| NISKU C   | 543   | 0.85                     | 0.30                    | 323  |   | 323  | 37  | 12 090                               | 200    |
| NISKU A   | 206   | 0.75                     | 0.35                    | 101  |   |  | 37  |                                      | 200    |
| LEDUC A   | 1 186   | 0.75                     | 0.30                    | 623  |   |  | 38  |                                      | 200    |
| NISKU A & LEDUC A TOTAL                                       | 1 392   | 0.75                     | 0.30                    | 724  | 232   | 492  | 37  | 18 416                               |        |
| NISKU B   | 603   | 0.75                     | 0.35                    | 294  |   |  | 37  |                                      | 200    |
| LEDUC B   | 785   | 0.75                     | 0.30                    | 412  |   |  | 38  |                                      | 200    |
| NISKU B & LEDUC B TOTAL                                       | 1 388   | 0.75                     | 0.30                    | 706  | 210   | 496  | 37  | 18 565                               |        |
| OTHER   | 1 058   |                          |                         | 716  | 62  | 654  |   | 24 492                               |        |
| TOTAL-LIMESTONE   | 25 510  |                          |                         | 14 756   | 2 884   | 11 872   |   | 455 164                              |        |
| LINDBERGH 057-05W4  |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A  | 1 008   | 0.50                     | 0.05                    | 479  | 12  | 467  | 37  | 17 307                               | 36 120 |
| OTHER   | 5 664   |                          |                         | 3 603  | 836   | 2 767  |   | 103 481                              |        |
| TOTAL-LINDBERGH   | 6 672   |                          |                         | 4 082  | 848   | 3 234  |   | 120 788                              |        |
| LINK 034-17W4<br>TOTAL-LINK                                   | 511   |                          |                         | 334  | 52  | 282  |   | 10 603                               |        |
| LITTLE BOW 015-19W4   |   |                          |                         |  |   |  |   |                                      |        |
| GLAUCONITIC 13-015 ASSOC                                      | 617   | 0.80                     | 0.10                    | 444  |   | 444  | 37  | 16 619                               | 400    |
| UPPER MANNVILLE A   | 596   | 0.90                     | 0.10                    | 482  | 428   | 54   | 37  | 2 021                                | 200    |
| OTHER   | 6 440   |                          |                         | 4 265  | 513   | 3 752  |   | 140 656                              |        |
| TOTAL-LITTLE BOW  | 7 653   |                          |                         | 5 191  | 941   | 4 250  |   | 159 296                              |        |
| LITTLE SMOKY 067-22W5<br>TOTAL-LITTLE SMOKY                   | 497   |                          |                         | 334  |   | 334  |   | 12 586                               |        |
| LITTLE SMOKY LAKE (SA)<br>075-22W5<br>TOTAL-LITTLE SMOKY LAKE | 102   |                          |                         | 72   |   | 72   |   | 2 720                                |        |
| LIVDCK (SA) 085-23W4<br>TOTAL-LIVDCK                          | 2   |                          |                         | 1  |   | 1  |   | 38                                   |        |
| LLOYDMINSTER 050-01W4   |   |                          |                         |  |   |  |   |                                      |        |
| COLONY ASSOC  | 610   | 0.60                     | 0.05                    | 348  | 214   | 134  | 38  | 5 116                                | 4 600  |
| SPARKY DD   | 511   | 0.70                     | 0.05                    | 340  |   | 340  | 36  | 12 090                               | 2 724  |
| OTHER   | 4 115   |                          |                         | 2 130  | 340   | 1 790  |   | 65 485                               |        |
| TOTAL-LLOYDMINSTER  | 5 236   |                          |                         | 2 818  | 554   | 2 264  |   | 82 691                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS                              |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                          |  |
| 3.65                        | 0.297    | 0.65        | 920                 | 21   | 0.981    | 0.57                           | 313.0                      | 1980         | 1985                     | KANNGAZ PANALTA PROGAS                               |
| 4.35                        | 0.303    | 0.45        | 960                 | 11   | 0.978    | 0.71                           | 229.3                      | 1974         | 1983                     |  |
| 18.82                       | 0.120    | 0.45        | 940                 | 18   | 0.980    | 0.59                           | 337.8                      | 1963         | 1985                     |  |
| 4.46                        | 0.273    | 0.45        | 900                 | 18   | 0.981    | 0.57                           | 285.0                      | 1963         | 1985                     | PROGAS PANALTA                                       |
| 14.54                       | 0.202    | 0.20        | 920                 | 27   | 0.982    | 0.59                           | 261.8                      | 1974         | 1984                     |  |
| 14.55                       | 0.152    | 0.35        | 900                 | 17   | 0.980    | 0.58                           | 325.0                      | 1980         | 1985                     |  |
| 14.00                       | 0.070    | 0.88        | 24 145              | 83   | 0.912    | 0.67                           | 2 559.4                    | 1974         | 1984                     | TCPL   |
| 16.76                       | 0.063    | 0.82        | 26 050              | 80   | 0.936    | 0.67                           | 3 587.3                    | 1975         | 1984                     | TCPL   |
| 34.25                       | 0.077    | 0.88        | 24 460              | 83   | 0.936    | 0.75                           | 3 042.2                    | 1975         | 1984                     | TOP/BASE TVD   |
| 8.87                        | 0.069    | 0.80        | 24 460              | 83   | 0.936    | 0.72                           | 3 161.5                    | 1975         | 1984                     | TOP/BASE TVD   |
| 31.90                       | 0.062    | 0.76        | 24 660              | 83   | 0.936    | 0.75                           | 3 232.1                    | 1976         | 1984                     | TCPL   |
| 5.49                        | 0.060    | 0.70        | 24 660              | 83   | 0.936    | 0.75                           | 3 395.2                    | 1976         | 1984                     | TOP/BASE TVD   |
| 30.78                       | 0.060    | 0.80        | 26 440              | 149  | 0.960    | 0.71                           | 3 836.2                    | 1976         | 1984                     | TOP/BASE TVD   |
| 20.20                       | 0.053    | 0.80        | 31 160              | 116  | 0.982    | 0.72                           | 3 644.3                    | 1976         | 1984                     | TCPL   |
| 20.20                       | 0.053    | 0.80        | 31 160              | 116  | 0.882    | 0.82                           | 3 865.8                    | 1976         | 1984                     | TCPL   |
| 24.50                       | 0.050    | 0.80        | 33 180              | 103  | 0.905    | 0.81                           | 3 911.4                    | 1978         | 1981                     | TCPL   |
| 8.64                        | 0.060    | 0.80        | 28 980              | 96   | 0.897    | 0.80                           | 3 491.8                    | 1976         | 1978                     | TCPL   |
| 55.69                       | 0.050    | 0.80        | 31 890              | 91   | 0.938    | 0.75                           | 3 610.8                    | 1976         | 1977                     | TCPL   |
| 21.34                       | 0.071    | 0.80        | 31 370              | 116  | 0.922    | 0.81                           | 3 790.1                    | 1976         | 1978                     | TCPL   |
| 25.66                       | 0.072    | 0.80        | 31 890              | 91   | 0.938    | 0.75                           | 3 864.7                    | 1976         | 1981                     | TOP/BASE TVD   |
|                             |          |             |                     |      |          |                                |                            | 1976         | 1981                     | TOP/BASE TVD   |
|                             |          |             |                     |      |          |                                |                            | 1976         | 1981                     | TCPL   |
| 0.79                        | 0.240    | 0.50        | 2 760               | 20   | 0.944    | 0.57                           | 386.3                      | 1946         | 1985                     | MIP PANALTA  |
| 7.10                        | 0.240    | 0.65        | 12 010              | 35   | 0.796    | 0.67                           | 1 189.6                    | 1980         | 1983                     | PROGAS   |
| 6.10                        | 0.175    | 0.65        | 11 580              | 39   | 0.811    | 0.67                           | 1 214.5                    | 1965         | 1985                     | TCPL MATERIAL BALANCE                                |
| 4.30                        | 0.300    | 0.60        | 3 050               | 19   | 0.942    | 0.59                           | 532.8                      | 1943         | 1985                     | MATERIAL BALANCE COMPOSITE COLONY RESERVE<br>PANALTA |
| 2.01                        | 0.290    | 0.75        | 4 110               | 21   | 0.925    | 0.60                           | 611.4                      | 1966         | 1984                     |  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE        | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>LOCHEND 027-03W5</b><br>TOTAL-LOCHEND            | 55  |                          |                         | 40   |   | 40   |   | 1 497                                |        |
| <b>LOCHINVAR (SA) 041-26W4</b><br>TOTAL-LOCHINVAR   | 100   |                          |                         | 64   |   | 64   |   | 2 468                                |        |
| <b>LOGAN 072-13W4</b><br>TOTAL-LOGAN                | 37  |                          |                         | 21   |   | 21   |   | 784                                  |        |
| <b>LONE 089-04W6</b><br>TOTAL-LONE                  | 87  |                          |                         | 58   |   | 58   |   | 2 279                                |        |
| <b>LONE PINE CREEK 030-28W4</b><br>WABAMUN A        | 14 995  | 0.75                     | 0.27                    | 8 210  | 5 499   | 2 711  | 39  | 104 645                              | 20 942 |
| D-3 A SDLN  | 557   | 0.65                     | 0.30                    | 253b   |   |  | 37  |                                      |        |
| D-3 A ASSOC   | 3 074   | 0.50                     | 0.33                    | 1 030b   | 910b  | 373  | 37  | 13 637                               | 1 835  |
| OTHER   | 631   |                          |                         | 375  |   | 375  |   | 14 363                               |        |
| TOTAL-LONE PINE CREEK                               | 19 257  |                          |                         | 9 868  | 6 409   | 3 459  |   | 132 645                              |        |
| <b>LONG COULEE 016-21W4</b><br>MANNVILLE J          | 1 672   | 0.80                     | 0.20                    | 1 070  | 664   | 406  | 37  | 15 197                               | 1 908  |
| MANNVILLE N   | 1 625   | 0.80                     | 0.20                    | 1 040  | 917   | 123  | 37  | 4 604                                | 1 299  |
| MANNVILLE U   | 672   | 0.85                     | 0.25                    | 428  | 366   | 62   | 37  | 2 321                                | 1 160  |
| MANNVILLE V   | 2 180   | 0.85                     | 0.25                    | 1 390  | 579   | 811  | 37  | 30 356                               | 2 596  |
| OTHER   | 4 136   |                          |                         | 2 428  | 404   | 2 024  |   | 76 119                               |        |
| TOTAL-LONG COULEE                                   | 10 285  |                          |                         | 6 356  | 2 930   | 3 426  |   | 128 597                              |        |
| <b>LOOKOUT BUTTE 001-28W4</b><br>RUNDLE A           | 13 818  | 0.55                     | 0.25                    | 5 700  | 5 249   | 451  | 40a   | 17 896                               | 2 858  |
| TOTAL-LOOKOUT BUTTE                                 | 13 818  |                          |                         | 5 700  | 5 249   | 451  |   | 17 896                               |        |
| <b>LOSEMAN (SA) 067-02W4</b><br>TOTAL-LOSEMAN       | 43  |                          |                         | 23   |   | 23   |   | 851                                  |        |
| <b>LOST 084-26W5</b><br>TOTAL-LOST                  | 74  |                          |                         | 48   |   | 48   |   | 1 778                                |        |
| <b>LOUISE (SA) 064-15W5</b><br>TOTAL-LOUISE         | 155   |                          |                         | 98   |   | 98   |   | 3 851                                |        |
| <b>LOUSANA 036-21W4</b><br>TOTAL-LOUSANA            | 54  |                          |                         | 30   |   | 30   |   | 1 191                                |        |
| <b>LOVETT RIVER 046-18W5</b><br>RUNDLE A            | 1 767   | 0.50                     | 0.10                    | 795  |   | 795  | 39  | 30 949                               | 1 142  |
| OTHER   | 651   |                          |                         | 436  |   | 436  |   | 16 973                               |        |
| TOTAL-LOVETT RIVER                                  | 2 418   |                          |                         | 1 231  |   | 1 231  |   | 47 922                               |        |
| <b>LUCKY 061-18W4</b><br>TOTAL-LUCKY                | 777   |                          |                         | 521  | 145   | 376  |   | 14 059                               |        |
| <b>LUNNFORD 059-03W5</b><br>TOTAL-LUNNFORD          | 597   |                          |                         | 397  | 4   | 393  |   | 14 711                               |        |
| <b>LYLE 073-18W4</b><br>TOTAL-LYLE                  | 115   |                          |                         | 66   |   | 66   |   | 2 470                                |        |
| <b>LYNDON (SA) 013-29W4</b><br>TOTAL-LYNDON         | 48  |                          |                         | 34   |   | 34   |   | 1 273                                |        |
| <b>LYNX 062-09W6</b><br>TOTAL-LYNX                  | 834   |                          |                         | 561  | 185   | 376  |   | 14 073                               |        |
| <b>MAJEAU 066-04W5</b><br>BANFF A                   | 396   | 0.85                     | 0.10                    | 303  | 49  | 254  | 40  | 10 173                               | 200    |
| OTHER   | 2 458   |                          |                         | 1 679  | 163   | 1 516  |   | 59 839                               |        |
| TOTAL-MAJEAU  | 2 854   |                          |                         | 1 982  | 212   | 1 770  |   | 70 012                               |        |
| <b>MAJORVILLE 018-19W4</b><br>GLAUCONITIC 16-019-20 | 585   | 0.85                     | 0.10                    | 447  |   | 447  | 38  | 17 066                               | 200    |
| OTHER   | 1 511   |                          |                         | 1 019  | 6   | 1 013  |   | 38 938                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15           | 16                  | 17                         | 18                 | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|--------------|---------------------|----------------------------|--------------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | PERMEABILITY | RELATIVE<br>DENSITY | MOCK<br>FORMATION<br>DEPTH | DATE<br>OIL<br>OAR | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS  |
| m                           | frac     | frac        | kPa                 | sec  | md           | frac                | m                          |                    |                          |  |
| 10.04                       | 0.055    | 0.80        | 24 610              | 83   | 0.890        | 0.71                | 2 417.2                    | 1955               | 1984                     | PANALTA PROBAB TYPE MATERIAL BALANCE   |
| 17.43                       | 0.083    | 0.85        | 22 480              | 83   | 0.882        | 0.75                | 2 425.0                    | 1963               | 1985                     | TCPL PRODUCTION DECLINE CONCURRENT<br>PRODUCTION OIL DEPLETED<br>TCPL PRODUCTION DECLINE CONCURRENT<br>PRODUCTION OIL DEPLETED |
| 4.89                        | 0.162    | 0.55        | 13 270              | 42   | 0.782        | 0.74                | 1 487.3                    | 1967               | 1985                     | TCPL MATERIAL BALANCE  |
| 2.59                        | 0.206    | 0.80        | 11 020              | 41   | 0.810        | 0.78                | 1 460.5                    | 1967               | 1982                     | TCPL MATERIAL BALANCE  |
| 4.00                        | 0.152    | 0.65        | 12 690              | 40   | 0.787        | 0.79                | 1 384.0                    | 1960               | 1982                     | PANALTA TCPL   |
| 2.54                        | 0.199    | 0.80        | 13 000              | 44   | 0.780        | 0.80                | 1 396.4                    | 1975               | 1985                     | PANALTA TCPL MATERIAL BALANCE  |
| 35.16                       | 0.065    | 0.80        | 32 850              | 88   | 0.935        | 1.00                | 3 675.4                    | 1959               | 1984                     | TCPL MATERIAL BALANCE  |
| 13.72                       | 0.051    | 0.85        | 33 770              | 95   | 1.003        | 0.62                | 3 568.4                    | 1958               | 1984                     | PANALTA TOP/BASE TYP   |
| 18.29                       | 0.110    | 0.85        | 10 410              | 41   | 0.815        | 0.66                | 1 296.6                    | 1951               | 1983                     | PANALTA  |
| 9.70                        | 0.270    | 0.85        | 12 310              | 49   | 0.828        | 0.62                | 1 380.2                    | 1981               | 1983                     | TCPL   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>MAJORVILLE 018-19W4<br/>(CONTINUED)</b>   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MAJORVILLE                             | 2 096   |                          |                         | 1 466  | 6   | 1 460  |   | 56 004                               |        |
| <b>MALMO 043-22W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| D-3 B  | 1 542   | 0.90                     | 0.20                    | 1 110  | 158   | 952  | 41  | 39 203                               | 974    |
| OTHER  | 1 801   |                          |                         | 845  | 42  | 803  |   | 31 625                               |        |
| TOTAL-MALMO                                  | 3 343   |                          |                         | 1 955  | 200   | 1 755  |   | 70 828                               |        |
| <b>MANITO 042-20W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MANITO                                 | 986   |                          |                         | 718  | 12  | 706  |   | 26 816                               |        |
| <b>MANNING (SA) 090-25W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MANNING                                | 70  |                          |                         | 47   |   | 47   |   | 1 724                                |        |
| <b>MANNVILLE 051-08W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| UPPER VIKING D                               | 354   | 0.85                     | 0.05                    | 286  |   |  | 37  |                                      | 9 101  |
| MIDDLE VIKING C                              | 496   | 0.85                     | 0.05                    | 401  |   |  | 37  |                                      | 10 774 |
| U VIK D & M VIK C TOTAL                      | 850   | 0.85                     | 0.05                    | 687  | 182   | 505  | 37  | 18 902                               |        |
| UPPER MANNVILLE C                            | 796   | 0.70                     | 0.05                    | 529  | 445   | 84   | 37  | 3 144                                | 2 523  |
| UPPER MANNVILLE F                            | 1 309   | 0.80                     | 0.05                    | 995  | 448   | 547  | 37  | 20 474                               | 4 903  |
| UPPER MANNVILLE H                            | 751   | 0.80                     | 0.05                    | 571  | 420   | 151  | 37  | 5 652                                | 5 501  |
| OTHER  | 6 468   |                          |                         | 4 247  | 941   | 3 306  |   | 124 008                              |        |
| TOTAL-MANNVILLE                              | 10 174  |                          |                         | 7 029  | 2 436   | 4 593  |   | 172 180                              |        |
| <b>MANNVILLE SOUTH (SA)<br/>049-08W4</b>     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MANNVILLE SOUTH                        | 252   |                          |                         | 159  |   | 159  |   | 5 834                                |        |
| <b>MANNY 076-21W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MANNY                                  | 56  |                          |                         | 32   |   | 32   |   | 1 186                                |        |
| <b>MANOLA 058-02W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MANOLA                                 | 377   |                          |                         | 263  | 57  | 206  |   | 8 176                                |        |
| <b>MANYBERRIES 005-05W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| BOW ISLAND A                                 | 789   | 0.90                     | 0.05                    | 675  | 612   | 63   | 35  | 2 217                                | 3 743  |
| OTHER  | 1 876   |                          |                         | 1 277  | 293   | 984  |   | 36 379                               |        |
| TOTAL-MANYBERRIES                            | 2 665   |                          |                         | 1 952  | 905   | 1 047  |   | 38 596                               |        |
| <b>MANYBERRIES SOUTH (SA)<br/>003-05W4</b>   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MANYBERRIES SOUTH                      | 89  |                          |                         | 67   |   | 67   |   | 2 558                                |        |
| <b>MARGIE 074-09W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MARGIE                                 | 106   |                          |                         | 53   |   | 53   |   | 1 979                                |        |
| <b>MARIE 065-02W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MARIE                                  | 238   |                          |                         | 125  | 20  | 105  |   | 3 963                                |        |
| <b>MARION LAKE 037-18W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MARION LAKE                            | 80  |                          |                         | 49   |   | 49   |   | 2 040                                |        |
| <b>MARKERVILLE 036-02W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| PEKISKO A                                    | 2 824   | 0.80                     | 0.15                    | 1 920  | 110   | 1 810  | 41  | 74 536                               | 3 206  |
| OTHER  | 451   |                          |                         | 298  | 22  | 276  |   | 10 706                               |        |
| TOTAL-MARKERVILLE                            | 3 275   |                          |                         | 2 218  | 132   | 2 086  |   | 85 242                               |        |
| <b>MARLBORO 055-19W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| LEDUC A                                      | 5 747   | 0.70                     | 0.30                    | 2 820  | 764   | 2 056  | 37  | 76 956                               | 563    |
| OTHER  | 73  |                          |                         | 49   |   | 49   |   | 1 834                                |        |
| TOTAL-MARLBORO                               | 5 820   |                          |                         | 2 869  | 764   | 2 105  |   | 78 790                               |        |
| <b>MARLOWE (SA) 122-22W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MARLOWE                                | 15  |                          |                         | 9  |   | 9  |   | 337                                  |        |
| <b>MARSH (SA) 054-25W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MARSH                                  | 332   |                          |                         | 268  |   | 268  |   | 10 031                               |        |
| <b>MARTEN 077-04W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MARTEN                                 | 339   |                          |                         | 222  |   | 222  |   | 8 731                                |        |



| 10                          | 11       | 12          | 13                                  | 14   | 15                       | 16          | 17  | 18   | 19          | 20  |
|-----------------------------|----------|-------------|-------------------------------------|------|--------------------------|-------------|---|------|-------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | AGE<br>DATE | INITIAL<br>CUMULATIVE<br>PRODUCTION | DATE | CUMULATIVE<br>PRODUCTION | AGE<br>DATE | DETAILED<br>FORMATION<br>CUMULATIVE<br>PRODUCTION | DATE | AGE<br>DATE | EXPLANATION AND REMARKS   |
| m                           | %        | 1900        | 1900                                | 1900 | 1900                     | 1900        | 1900  | 1900 | 1900        |   |
| 15.24                       | 0.072    | 0.90        | 18 800                              | 1900 | 0.875                    | 0.74        | 1 820.1   | 1900 | 1981        | TCPL  |
| 0.75                        | 0.218    | 0.50        | 4 440                               | 1974 | 0.875                    | 0.59        | 537.8   | 1974 | 1984        | CUMULATIVE MATERIAL BALANCE<br>TCPL MATERIAL BALANCE<br>TCPL<br>CUMULATIVE TCPL |
| 0.90                        | 0.215    | 0.50        | 4 440                               | 1974 | 0.910                    | 0.60        | 538.4   | 1974 | 1984        |   |
| 2.28                        | 0.250    | 0.60        | 4 440                               | 1974 | 0.910                    | 0.57        | 538.4   | 1974 | 1984        |   |
| 3.58                        | 0.270    | 0.60        | 4 340                               | 1974 | 0.912                    | 0.58        | 538.4   | 1974 | 1981        |   |
| 1.76                        | 0.270    | 0.60        | 4 460                               | 1974 | 0.909                    | 0.58        | 539.5   | 1970 | 1981        |   |
| 2.67                        | 0.290    | 0.70        | 8 820                               | 1977 | 0.901                    | 0.58        | 792.7   | 1947 | 1985        | CUMULATIVE MATERIAL BALANCE   |
| 9.22                        | 0.067    | 0.75        | 18 800                              | 1900 | 0.814                    | 0.71        | 2 272.2   | 1974 | 1981        | CUMULATIVE AND KANNGAZ PRODUCTION   |
| 65.84                       | 0.068    | 0.90        | 34 820                              | 1900 | 0.972                    | 0.74        | 3 703.9   | 1965 | 1975        | AND   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>MARTEN HILLS 075-25W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| WABISKAW C                                   | 631   | 0.80                     | 0.05                    | 479  | 39  | 440  | 37  | 16 306                               | 3 089  |
| WABISKAW A                                   | 23 553  | 0.80                     | 0.05                    | 17 900   |   |  | 37  |                                      | 82 375 |
| WABAMUN A                                    | 9 069   | 0.65                     | 0.05                    | 5 600  |   |  | 37  |                                      | 32 374 |
| WBSK A & WAB A TOTAL                         | 32 622  | 0.75                     | 0.05                    | 23 500   | 14 723  | 8 777  | 37  | 325 276                              |        |
| WABAMUN C                                    | 1 412   | 0.75                     | 0.05                    | 1 010  |   | 1 010  | 37  | 37 431                               | 8 284  |
| OTHER  | 1 920   |                          |                         | 1 125  | 94  | 1 031  |   | 38 275                               |        |
| TOTAL-MARTEN HILLS                           | 36 585  |                          |                         | 26 114   | 14 856  | 11 258   |   | 417 288                              |        |
| <b>MARWAYNE 053-03W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MARWAYNE                               | 366   |                          |                         | 240  |   | 240  |   | 9 084                                |        |
| <b>MATZIWIN 023-14W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| MILK RIVER A                                 | 2 827   | 0.70                     | 0.05                    | 1 880  |   |  | 36a   |                                      | 18 414 |
| MEDICINE HAT A                               | 2 107   | 0.70                     | 0.03                    | 1 430  |   |  | 36a   |                                      | 16 513 |
| MEDICINE HAT C                               | 32  | 0.50                     | 0.03                    | 16   |   |  | 36a   |                                      | 1 382  |
| MEDICINE HAT D                               | 204   | 0.50                     | 0.03                    | 99   |   |  | 36a   |                                      | 5 649  |
| SE ALTA GAS SYS(MU) TOTAL                    | 5 170   | 0.70                     | 0.05                    | 3 425  | 840   | 2 585  | 36a   | 93 861                               |        |
| OTHER  | 993   |                          |                         | 674  | 217   | 457  |   | 17 862                               |        |
| TOTAL-MATZIWIN                               | 6 163   |                          |                         | 4 099  | 1 057   | 3 042  |   | 111 723                              |        |
| <b>MAY (SA) 075-11W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MAY                                    | 17  |                          |                         | 13   |   | 13   |   | 482                                  |        |
| <b>MCADAM (SA) 082-14W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MCADAM                                 | 10  |                          |                         | 4  |   | 4  |   | 150                                  |        |
| <b>MCGREGOR 017-20W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| SUNBURST 29-017-20                           | 478   | 0.85                     | 0.05                    | 386  |   | 386  | 37  | 14 448                               | 200    |
| OTHER  | 432   |                          |                         | 293  |   | 293  |   | 11 089                               |        |
| TOTAL-MCGREGOR                               | 910   |                          |                         | 679  |   | 679  |   | 25 537                               |        |
| <b>MCGUFFIN (SA) 066-11W4</b>                |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MCGUFFIN                               | 169   |                          |                         | 94   |   | 94   |   | 3 487                                |        |
| <b>MCKAY RIVER (SA) 091-18W4</b>             |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MCKAY RIVER                            | 14  |                          |                         | 7  |   | 7  |   | 257                                  |        |
| <b>MCKINLEY 065-22W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MCKINLEY                               | 644   |                          |                         | 448  | 35  | 413  |   | 16 043                               |        |
| <b>MCLAUGHLIN 046-01W4</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MCLAUGHLIN                             | 201   |                          |                         | 124  | 13  | 111  |   | 4 156                                |        |
| <b>MCLEOD 054-14W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM A SOLN                               | 13  | 0.60                     | 0.10                    | 7b   |   |  | 37  |                                      |        |
| CARDIUM A ASSDC                              | 1 187   | 0.75                     | 0.10                    | 801b   | 328b  | 480  | 37  | 17 966                               | 4 649  |
| GETHING 055-14                               | 1 364   | 0.80                     | 0.15                    | 927  |   | 927  | 37  | 34 698                               | 1 464  |
| GETHING 056-14                               | 629   | 0.75                     | 0.15                    | 401  |   | 401  | 37  | 15 009                               | 1 341  |
| WINTERBURN 31-054-14                         | 825   | 0.90                     | 0.15                    | 631  |   | 631  | 37  | 23 618                               | 200    |
| OTHER  | 987   |                          |                         | 640  | 18  | 622  |   | 23 382                               |        |
| TOTAL-MCLEOD                                 | 5 005   |                          |                         | 3 407  | 346   | 3 061  |   | 114 673                              |        |
| <b>MCMILLAN 074-17W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MCMILLAN                               | 812   |                          |                         | 440  | 307   | 133  |   | 4 974                                |        |
| <b>MCMULLEN 077-26W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MCMULLEN                               | 450   |                          |                         | 268  | 176   | 92   |   | 3 443                                |        |
| <b>MEADOW 062-25W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MEADOW                                 | 212   |                          |                         | 141  | 5   | 136  |   | 5 202                                |        |
| <b>MEANDER (SA) 115-21W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MEANDER                                | 12  |                          |                         | 9  |   | 9  |   | 371                                  |        |
| <b>MEANDOK 063-22W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MEANDOK                                | 1 820   |                          |                         | 1 232  | 441   | 791  |   | 29 609                               |        |
| <b>MEDALLION 019-27W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MEDALLION                              | 322   |                          |                         | 211  |   | 211  |   | 7 898                                |        |



| 10                          | 11       | 12        | 13                  | 14   | 15     | 16                             | 17                            | 18           | 19                       | 20                                     |
|-----------------------------|----------|-----------|---------------------|------|--------|--------------------------------|-------------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GR<br>GRT | INITIAL<br>PRESSURE | TIME | LENGTH | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>PRESSURE | DISC<br>YEAR | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS                |
| m                           | frac     | frac      | kPa                 | hr   | ft     | frac                           | psi                           |              |                          |  |
| 4.07                        | 0.287    | 0.60      | 2 700               | 25   | 11 988 | 0.57                           | 794.0                         | 1971         | 1978                     | HANNIAZ PANALIA TOPL                   |
| 5.23                        | 0.278    | 0.65      | 2 700               | 27   | 11 988 | 0.57                           | 685.8                         | 1981         | 1988                     | MATERIAL BALANCE                       |
| 11.39                       | 0.138    | 0.55      | 2 740               | 38   | 0.950  | 0.57                           | 712.8                         | 1981         | 1982                     | PANALIA TOPL                           |
| 4.66                        | 0.211    | 0.65      | 2 740               | 35   | 0.950  | 0.57                           | 712.4                         | 1981         | 1982                     | PANALIA TOPL                           |
|                             |          |           |                     |      |        |                                |                               |              |                          |  |
| 6.05                        | 0.154    | 0.55      | 3 140               | 16   | 0.938  | 0.58                           | 355.7                         | 1980         | 1983                     | PART OF MILK RIV POOL NO. 1 PRODUCTION |
| 2.94                        | 0.170    | 0.55      | 4 310               | 17   | 0.938  | 0.57                           | 487.7                         | 1984         | 1978                     | DECLINE                                |
| 0.59                        | 0.136    | 0.60      | 4 450               | 18   | 0.921  | 0.57                           | 487.7                         | 1973         | 1981                     | PART OF MED HAT POOL NO. 1             |
| 0.92                        | 0.139    | 0.60      | 4 450               | 18   | 0.921  | 0.57                           | 487.7                         | 1973         | 1981                     | PART OF MED HAT POOL NO. 3             |
|                             |          |           |                     |      |        |                                |                               | 1904         | 1983                     | PART OF MED HAT POOL NO. 4             |
|                             |          |           |                     |      |        |                                |                               |              |                          | CNG PANALIA PROGAS TOPL                |
|                             |          |           |                     |      |        |                                |                               |              |                          |  |
| 12.70                       | 0.200    | 0.70      | 13 000              | 43   | 0.865  | 0.59                           | 1 420.0                       | 1981         | 1982                     | PROGAS                                 |
|                             |          |           |                     |      |        |                                |                               |              |                          |  |
|                             |          |           |                     |      |        | 0.68                           |                               | 1972         | 1984                     | 46S TOPL CWNGNUL PANALIA CONCURRENT    |
| 4.52                        | 0.100    | 0.60      | 9 260               | 56   | 0.850  | 0.68                           | 1 506.8                       | 1972         | 1984                     | PRODUCTION                             |
| 5.36                        | 0.147    | 0.65      | 16 710              | 62   | 0.780  | 0.71                           | 2 067.9                       | 1980         | 1985                     | 46S TOPL CWNGNUL PANALIA CONCURRENT    |
| 3.55                        | 0.125    | 0.60      | 16 140              | 63   | 0.775  | 0.75                           | 2 109.0                       | 1982         | 1985                     | PRODUCTION                             |
| 27.76                       | 0.080    | 0.80      | 26 480              | 80   | 0.919  | 0.71                           | 2 652.7                       | 1976         | 1977                     |  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE         | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9       |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|---------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA    |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |         |
| <b>MEDICINE HAT 013-03W4</b><br>MILK RIVER A         | 46 045  | 0.70                     | 0.05                    | 30 620   |   |  | 36a   |                                      | 369 798 |
| MEDICINE HAT A                                       | 79 302  | 0.65                     | 0.03                    | 50 000   |   |  | 36a   |                                      | 472 243 |
| MEDICINE HAT C                                       | 5 422   | 0.50                     | 0.03                    | 2 630  |   |  | 36a   |                                      | 153 489 |
| MEDICINE HAT D                                       | 4 948   | 0.50                     | 0.03                    | 2 400  |   |  | 36a   |                                      | 129 963 |
| SE ALTA GAS SYS(MU) TOTAL                            | 135 717   | 0.65                     | 0.05                    | 85 650   | 58 384  | 27 266   | 36a   | 990 028                              |         |
| SECOND WHITE SPECKS D                                | 2 076   | 0.70                     | 0.05                    | 1 380  | 345   | 1 035  | 36  | 37 581                               | 25 332  |
| SECOND WHITE SPECKS F                                | 505   | 0.75                     | 0.05                    | 361  |   | 361  | 36  | 13 108                               | 1 600   |
| SECOND WHITE SPECKS J                                | 415   | 0.80                     | 0.05                    | 315  | 5   | 310  | 36  | 11 256                               | 5 180   |
| SECOND WHITE SPECKS A                                | 6 821   | 0.75                     | 0.05                    | 4 860  |   |  | 36  |                                      | 60 495  |
| SECOND WHITE SPECKS A                                | 13  | 0.75                     | 0.05                    | 9  |   |  | 36  |                                      | 440     |
| SECOND WHITE SPECKS A TOTAL                          | 6 834   | 0.75                     | 0.05                    | 4 869  | 1 267   | 3 602  | 36  | 130 789                              |         |
| LOWER COLORADO SAND B                                | 1 154   | 0.85                     | 0.05                    | 932  | 138   | 794  | 37  | 29 719                               | 11 366  |
| BOW ISLAND B   | 1 267   | 0.40                     | 0.05                    | 482  | 431   | 51   | 36  | 1 852                                | 3 540   |
| BOW ISLAND L   | 560   | 0.80                     | 0.05                    | 426  | 360   | 66   | 36  | 2 396                                | 3 713   |
| BOW ISLAND C   | 437   | 0.80                     | 0.05                    | 332  | 24  | 308  | 36  | 11 183                               | 1 613   |
| OTHER  | 5 803   |                          |                         | 4 040  | 871   | 3 169  |   | 117 241                              |         |
| TOTAL-MEDICINE HAT                                   | 154 768   |                          |                         | 98 787   | 61 825  | 36 962   |   | 1 345 153                            |         |
| <b>MEDICINE LODGE 052-21W5</b><br>VIKING A           | 784   | 0.90                     | 0.10                    | 635  | 11  | 624  | 39  | 24 523                               | 1 856   |
| WABAMUN 16-052-21                                    | 519   | 0.70                     | 0.05                    | 345  |   | 345  | 39  | 13 559                               | 400     |
| WABAMUN 33-051-21                                    | 640   | 0.85                     | 0.20                    | 435  |   | 435  | 39  | 17 096                               | 200     |
| OTHER  | 1 004   |                          |                         | 678  |   | 678  |   | 26 897                               |         |
| TOTAL-MEDICINE LODGE                                 | 2 947   |                          |                         | 2 093  | 11  | 2 082  |   | 82 075                               |         |
| <b>MEDICINE RIVER 039-03W5</b><br>GLAUCONITIC A SOLN | 2 830   | 0.27                     | 0.20                    | 611b   |   |  | 43  |                                      |         |
| GLAUCONITIC A ASSOC                                  | 2 301   | 0.85                     | 0.10                    | 1 760b   | 585b  | 1 786  | 43  | 76 887                               | 2 739   |
| GLAUCONITIC D  | 157   | 0.75                     | 0.10                    | 106b   |   |  | 43  |                                      | 200     |
| OSTRACOD A ASSOC                                     | 383   | 0.75                     | 0.10                    | 259b   |   |  | 43a   |                                      | 1 268   |
| OSTRACOD A SOLN                                      | 223   | 0.65                     | 0.35                    | 94b  |   |  | 43a   |                                      |         |
| GLAUC D & OSTRACOD A TOTAL                           | 763   | 0.70                     | 0.15                    | 459b   | 421b  | 38   | 43a   | 1 636                                |         |
| OSTRACOD C SOLN                                      | 89  | 0.60                     | 0.45                    | 29b  |   |  | 43a   |                                      |         |
| OSTRACOD C ASSOC                                     | 1 813   | 0.85                     | 0.15                    | 1 310b   | 1 188b  | 151  | 43a   | 6 501                                | 2 268   |
| OSTRACOD O   | 627   | 0.90                     | 0.10                    | 508  |   | 508  | 43  | 21 869                               | 2 024   |
| BASAL QUARTZ D SOLN                                  | 29  | 0.65                     | 0.40                    | 11b  |   |  | 43a   |                                      |         |
| BASAL QUARTZ D ASSOC                                 | 418   | 0.85                     | 0.15                    | 302b   | 25b   | 288  | 43a   | 12 398                               | 776     |
| BASAL QUARTZ B ASSOC                                 | 40  | 0.90                     | 0.15                    | 31   |   |  | 43a   |                                      | 131     |
| BASAL QUARTZ B SOLN                                  | 1 800   | 0.40                     | 0.45                    | 396  |   |  | 43a   |                                      |         |
| BASAL QUARTZ B ASSOC                                 | 792   | 0.90                     | 0.15                    | 606  |   |  | 43a   |                                      | 669     |
| BASAL QUARTZ B ASSOC                                 | 13  | 0.90                     | 0.15                    | 10   |   |  | 43a   |                                      | 32      |
| BASAL QUARTZ B ASSOC                                 | 79  | 0.90                     | 0.15                    | 60   |   |  | 43a   |                                      | 128     |
| BASAL QUARTZ B TOTAL                                 | 2 724   | 0.55                     | 0.30                    | 1 103  | 147   | 956  | 43a   | 41 155                               |         |
| JURASSIC A ASSOC                                     | 187   | 0.70                     | 0.15                    | 111  |   |  | 38a   |                                      | 372     |
| JURASSIC A SOLN                                      | 1 300   | 0.35                     | 0.48                    | 237  |   |  | 38a   |                                      |         |
| JURASSIC A ASSOC                                     | 32  | 0.70                     | 0.15                    | 19   |   |  | 38  |                                      | 32      |
| JURASSIC A TOTAL                                     | 1 519   | 0.40                     | 0.40                    | 367  | 122   | 245  | 38a   | 9 354                                |         |
| JURASSIC D ASSOC                                     | 358   | 0.90                     | 0.15                    | 275  |   |  | 38a   |                                      | 318     |
| JURASSIC D ASSOC                                     | 17  | 0.90                     | 0.15                    | 13   |   |  | 38a   |                                      | 16      |
| JURASSIC D ASSOC                                     | 56  | 0.90                     | 0.15                    | 43   |   |  | 38a   |                                      | 32      |
| JURASSIC D SOLN                                      | 679   | 0.38                     | 0.45                    | 142  |   |  | 38a   |                                      |         |
| JURASSIC D TOTAL                                     | 1 110   | 0.60                     | 0.25                    | 473  | 139   | 334  | 38a   | 12 753                               |         |
| JURASSIC M   | 603   | 0.75                     | 0.15                    | 384  | 106   | 278  | 38a   | 10 614                               |         |
| PEKISKO N ASSOC                                      | 2 008   | 0.80                     | 0.15                    | 1 370  |   | 1 370  | 41  | 56 417                               | 1 539   |
| PEKISKO P  | 568   | 0.85                     | 0.11                    | 430  | 395   | 35   | 41a   | 1 441                                | 1 301   |
| PEKISKO T  | 1 799   | 0.85                     | 0.15                    | 1 300  | 38  | 1 262  | 41  | 51 969                               | 364     |
| OTHER  | 10 535  |                          |                         | 5 744  | 890   | 4 854  |   | 204 252                              |         |
| TOTAL-MEDICINE RIVER                                 | 29 736  |                          |                         | 16 161   | 4 056   | 12 105   |   | 507 246                              |         |
| <b>MEDLEY (SA) 06B-02W4</b><br>TOTAL-MEDLEY          | 52  |                          |                         | 26   |   | 26   |   | 973                                  |         |
| <b>MEEKWAP 066-15W5</b><br>TOTAL-MEEKWAP             | 1 164   |                          |                         | 262  | 59  | 203  |   | 7 598                                |         |



| 10                          | 11      | 12            | 13                  | 14   | 15        | 16                             | 17                         | 18          | 19             | 20   |
|-----------------------------|---------|---------------|---------------------|------|-----------|--------------------------------|----------------------------|-------------|----------------|--|
| AVERAGE<br>PAY<br>THICKNESS | PERCENT | GAS<br>SATUR. | INITIAL<br>PRESSURE | TIME | COMPRESS. | RAW GAS<br>RELATIVE<br>DENSITY | ANAL<br>FORMATION<br>DEPTH | AGE<br>DATE | DATE<br>TASTED | DESCRIPTION AND REMARKS                    |
| m                           | frac    | frac          | kPa                 | hr   | frac      | frac                           | m                          |             |                |  |
| 4.92                        | 0.154   | 0.55          | 3 140               | 16   | 0.938     | 0.55                           | 355.7                      | 1910        | 1988           | PART OF MICK RIV POOL NO. 1 PRODUCTION     |
| 3.88                        | 0.170   | 0.55          | 4 310               | 17   | 0.913     | 0.55                           | 487.7                      | 1904        | 1988           | DECLINE                                    |
| 0.90                        | 0.134   | 0.60          | 4 450               | 19   | 0.921     | 0.55                           | 487.7                      | 1973        | 1988           | PART OF MED HAT POOL NO. 1                 |
| 0.97                        | 0.139   | 0.60          | 4 450               | 19   | 0.921     | 0.55                           | 487.7                      | 1973        | 1988           | PART OF MED HAT POOL NO. 2                 |
|                             |         |               |                     |      |           |                                |                            | 1973        | 1988           | PART OF MED HAT POOL NO. 4                 |
|                             |         |               |                     |      |           |                                |                            | 1973        | 1988           | LAWSON MIP CT-MEDH PANALTA TCPL A&S ENG    |
|                             |         |               |                     |      |           |                                |                            | 1973        | 1988           | PANALTA PROGAS                             |
| 1.60                        | 0.180   | 0.55          | 4 900               | 24   | 0.910     | 0.55                           | 693.2                      | 1975        | 1982           | MIP TCPL                                   |
| 1.83                        | 0.216   | 0.60          | 5 690               | 27   | 0.905     | 0.57                           | 693.2                      | 1975        | 1985           |  |
| 1.42                        | 0.150   | 0.60          | 5 790               | 21   | 0.894     | 0.55                           | 693.2                      | 1977        | 1985           | TCPL                                       |
| 1.45                        | 0.216   | 0.60          | 5 690               | 27   | 0.899     | 0.57                           | 630.0                      | 1982        | 1982           | PART OF 2WS POOL NO. 1                     |
| 0.62                        | 0.150   | 0.60          | 4 900               | 20   | 0.907     | 0.55                           | 693.2                      | 1939        | 1978           | PART OF 2WS POOL NO. 1 ASSIGNED WELL       |
|                             |         |               |                     |      |           |                                |                            | 1939        | 1982           | 11-20-13-5-24M                             |
|                             |         |               |                     |      |           |                                |                            |             | 1982           | LAWSON CT-MEDH TCPL A&S PROGAS PART OF     |
| 1.24                        | 0.190   | 0.60          | 6 630               | 24   | 0.884     | 0.57                           | 709.0                      | 1971        | 1984           | 2WS POOL NO. 1                             |
| 1.75                        | 0.286   | 0.60          | 6 520               | 24   | 0.887     | 0.57                           | 709.0                      | 1948        | 1983           | MIP CT-MEDH TCPL                           |
| 1.48                        | 0.220   | 0.70          | 6 120               | 23   | 0.889     | 0.60                           | 660.6                      | 1971        | 1985           | MIP TCPL MATERIAL BALANCE                  |
| 2.24                        | 0.234   | 0.70          | 6 890               | 27   | 0.865     | 0.60                           | 718.1                      | 1955        | 1978           | LAWSON ENG                                 |
|                             |         |               |                     |      |           |                                |                            |             |                | TCPL PART OF BOW ISL POOL NO. 1            |
| 1.55                        | 0.120   | 0.80          | 35 920              | 88   | 0.804     | 0.66                           | 2 862.7                    | 1973        | 1978           | PANALTA PROGAS                             |
| 7.32                        | 0.090   | 0.75          | 36 900              | 107  | 0.852     | 0.64                           | 3 723.9                    | 1973        | 1982           | PROGAS TCPL                                |
| 19.83                       | 0.090   | 0.75          | 36 900              | 127  | 0.808     | 0.66                           | 3 920.4                    | 1979        | 1982           | PROGAS                                     |
|                             |         |               |                     |      |           | 0.77                           |                            | 1965        | 1984           | PANALTA PROGAS TCPL A&S CONCURRENT         |
|                             |         |               |                     |      |           |                                |                            |             |                | PRODUCTION                                 |
| 3.35                        | 0.130   | 0.75          | 26 150              | 66   | 0.853     | 0.77                           | 2 203.0                    | 1965        | 1984           | PANALTA PROGAS TCPL A&S CONCURRENT         |
|                             |         |               |                     |      |           |                                |                            |             |                | PRODUCTION                                 |
| 4.27                        | 0.130   | 0.75          | 18 460              | 69   | 0.814     | 0.75                           | 2 073.6                    | 1961        | 1982           | CONCURRENT PRODUCTION                      |
| 1.74                        | 0.139   | 0.65          | 18 510              | 63   | 0.815     | 0.69                           | 2 074.2                    | 1961        | 1982           | CONCURRENT PRODUCTION                      |
|                             |         |               |                     |      |           | 0.69                           |                            | 1961        | 1982           | A&S TCPL CONCURRENT PRODUCTION             |
|                             |         |               |                     |      |           | 0.80                           |                            | 1963        | 1984           | PANALTA TCPL PRODUCTION DECLINE CONCURRENT |
|                             |         |               |                     |      |           |                                |                            |             |                | PRODUCTION                                 |
| 2.55                        | 0.133   | 0.75          | 20 550              | 71   | 0.804     | 0.80                           | 2 278.3                    | 1963        | 1984           | PANALTA TCPL PRODUCTION DECLINE CONCURRENT |
|                             |         |               |                     |      |           |                                |                            |             |                | PRODUCTION                                 |
| 1.46                        | 0.136   | 0.75          | 20 200              | 69   | 0.807     | 0.73                           | 2 275.5                    | 1963        | 1985           | PROGAS TCPL                                |
| 3.28                        | 0.139   | 0.70          | 15 620              | 60   | 0.790     | 0.66                           | 2 094.6                    | 1962        | 1977           | A&S TCPL OIL POOL DEPLETED                 |
| 1.86                        | 0.139   | 0.70          | 16 380              | 66   | 0.806     | 0.72                           | 2 160.0                    | 1959        | 1982           | A&S TCPL OIL POOL DEPLETED                 |
|                             |         |               |                     |      |           | 0.72                           |                            | 1959        | 1982           |  |
| 6.98                        | 0.139   | 0.70          | 16 380              | 66   | 0.806     | 0.72                           | 2 107.4                    | 1959        | 1973           |  |
| 2.44                        | 0.139   | 0.70          | 16 380              | 66   | 0.806     | 0.72                           | 2 142.7                    | 1959        | 1973           |  |
| 3.70                        | 0.139   | 0.70          | 16 380              | 66   | 0.806     | 0.72                           | 2 172.0                    | 1959        | 1984           |  |
|                             |         |               |                     |      |           |                                |                            | 1959        | 1982           | A&S TCPL                                   |
| 2.71                        | 0.151   | 0.70          | 16 000              | 63   | 0.805     | 0.69                           | 2 131.2                    | 1956        | 1976           |  |
|                             |         |               |                     |      |           | 0.69                           |                            | 1956        | 1976           |  |
| 5.49                        | 0.157   | 0.70          | 16 000              | 63   | 0.805     | 0.69                           | 2 144.8                    | 1956        | 1981           |  |
|                             |         |               |                     |      |           |                                |                            | 1956        | 1976           | A&S TCPL                                   |
| 6.55                        | 0.145   | 0.70          | 16 130              | 63   | 0.805     | 0.69                           | 2 125.1                    | 1962        | 1973           |  |
| 6.19                        | 0.145   | 0.70          | 16 130              | 63   | 0.805     | 0.69                           | 2 125.4                    | 1962        | 1973           |  |
| 10.19                       | 0.145   | 0.70          | 16 130              | 63   | 0.805     | 0.69                           | 2 125.8                    | 1962        | 1973           |  |
|                             |         |               |                     |      |           | 0.69                           |                            | 1962        | 1973           |  |
| 13.60                       | 0.170   | 0.80          | 15 630              | 63   | 0.812     | 0.70                           | 2 161.0                    | 1962        | 1973           | TCPL A&S                                   |
| 9.33                        | 0.110   | 0.75          | 15 980              | 71   | 0.780     | 0.71                           | 2 133.9                    | 1963        | 1982           | A&S PANALTA PROGAS TCPL                    |
| 10.85                       | 0.098   | 0.75          | 16 380              | 59   | 0.789     | 0.74                           | 2 119.0                    | 1963        | 1980           | TCPL PRODUCTION DECLINE                    |
| 32.87                       | 0.111   | 0.80          | 15 030              | 59   | 0.760     | 0.73                           | 2 158.9                    | 1982        | 1985           | TCPL                                       |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE         | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>MEGA 101-07W6</b><br>TOTAL-MEGA                   | 59  |                          |                         | 34   |   | 34   |   | 1 286                                |        |
| <b>MELLOWDALE 060-03W5</b><br>TOTAL-MELLOWDALE       | 285   |                          |                         | 198  | 34  | 164  |   | 6 139                                |        |
| <b>MEYER 070-25W4</b><br>TOTAL-MEYER                 | 897   |                          |                         | 553  | 135   | 418  |   | 15 646                               |        |
| <b>MICHICHI 030-18W4</b><br>LOWER MANNVILLE B SOLN   | 19  | 0.65                     | 0.10                    | 11 <sup>b</sup>  |   |  | 38  |                                      |        |
| LOWER MANNVILLE B ASSOC                              | 727   | 0.80                     | 0.10                    | 524 <sup>b</sup>   | 21 <sup>b</sup>   | 514  | 38  | 19 625                               | 1 924  |
| LOWER MANNVILLE E                                    | 392   | 0.85                     | 0.10                    | 300  | 29  | 271  | 38  | 10 347                               | 911    |
| OTHER  | 2 133   |                          |                         | 1 342  | 195   | 1 147  |   | 44 560                               |        |
| TOTAL-MICHICHI                                       | 3 271   |                          |                         | 2 177  | 245   | 1 932  |   | 74 532                               |        |
| <b>MIKWAN 036-23W4</b><br>VIKING B                   | 1 510   | 0.65                     | 0.10                    | 884  | 591   | 293  | 42 <sup>a</sup>                             | 12 382                               | 8 256  |
| OTHER  | 4 311   |                          |                         | 2 835  | 477   | 2 358  |   | 96 836                               |        |
| TOTAL-MIKWAN   | 5 821   |                          |                         | 3 719  | 1 068   | 2 651  |   | 109 218                              |        |
| <b>MILLIGAN (SA) 097-13W6</b><br>TOTAL-MILLIGAN      | 177   |                          |                         | 114  |   | 114  |   | 4 329                                |        |
| <b>MILLS 069-11W4</b><br>TOTAL-MILLS                 | 305   |                          |                         | 156  | 80  | 76   |   | 2 846                                |        |
| <b>MILD 019-23W4</b><br>TOTAL-MILD                   | 335   |                          |                         | 238  |   | 238  |   | 8 999                                |        |
| <b>MINEHEAD 049-19W5</b><br>BEAVERHILL LAKE 049-19   | 7 143   | 0.50                     | 0.30                    | 2 500  |   | 2 500  | 37  | 93 575                               | 4 034  |
| OTHER  | 1 232   |                          |                         | 836  |   | 836  |   | 33 764                               |        |
| TOTAL-MINEHEAD                                       | 8 375   |                          |                         | 3 336  |   | 3 336  |   | 127 339                              |        |
| <b>MINNEHIK-BUCK LAKE 046-06W5</b><br>CARDIUM U SOLN | 686   | 0.65                     | 0.10                    | 401  | 57  | 344  | 37  | 12 876                               |        |
| ELLERSLIE A  | 28  | 0.80                     | 0.10                    | 20   |   |  | 37  |                                      | 200    |
| JURASSIC A   | 386   | 0.90                     | 0.15                    | 295  |   |  | 37  |                                      | 1 260  |
| ELRSL A & JUR A TOTAL                                | 414   | 0.90                     | 0.15                    | 315  | 14  | 301  | 37  | 11 266                               |        |
| PEKISKO A  | 24 342  | 0.90                     | 0.10                    | 19 700   | 14 079  | 5 621  | 42 <sup>a</sup>                             | 233 553                              | 14 852 |
| BANFF 27-045-04                                      | 403   | 0.90                     | 0.10                    | 326  |   | 326  | 42 <sup>a</sup>                             | 13 545                               | 200    |
| OTHER  | 1 856   |                          |                         | 1 244  | 47  | 1 197  |   | 46 419                               |        |
| TOTAL-MINNEHIK-BUCK LAKE                             | 27 701  |                          |                         | 21 986   | 14 197  | 7 789  |   | 317 659                              |        |
| <b>MINNDW 057-05W6</b><br>TOTAL-MINNDW               | 93  |                          |                         | 71   |   | 71   |   | 3 083                                |        |
| <b>MIRAGE 079-07W6</b><br>TOTAL-MIRAGE               | 257   |                          |                         | 185  | 4   | 181  |   | 6 885                                |        |
| <b>MISTAHAE 079-01W5</b><br>TOTAL-MISTAHAE           | 184   |                          |                         | 120  |   | 120  |   | 4 805                                |        |
| <b>MISTY 033-05W4</b><br>TOTAL-MISTY                 | 211   |                          |                         | 139  |   | 139  |   | 5 202                                |        |
| <b>MITCHELL (SA) 049-20W5</b><br>TOTAL-MITCHELL      | 192   |                          |                         | 137  |   | 137  |   | 5 128                                |        |
| <b>MITTUE 071-04W5</b><br>GILWOOD A ASSOC            | 68  | 0.75                     | 0.10                    | 46   |   |  | 44  |                                      | 327    |
| GILWOOD A SOLN                                       | 12 669  | 0.45                     | 0.35                    | 3 706  |   |  | 44  |                                      |        |
| GILWOOD A ASSOC                                      | 117   | 0.75                     | 0.10                    | 79   |   |  | 44  |                                      | 200    |
| GILWOOD A ASSOC                                      | 54  | 0.80                     | 0.05                    | 41   |   |  | 44  |                                      | 200    |
| GILWOOD A ASSOC                                      | 55  | 0.80                     | 0.15                    | 37   |   |  | 44  |                                      | 200    |
| GILWOOD A ASSOC                                      | 146   | 0.80                     | 0.05                    | 111  |   |  | 44  |                                      | 200    |
| GILWOOD A ASSOC                                      | 47  | 0.75                     | 0.10                    | 32   |   |  | 44  |                                      | 200    |
| GILWOOD A TOTAL                                      | 13 156  | 0.45                     | 0.35                    | 4 052  | 2 831   | 1 221  | 44  | 53 480                               |        |
| OTHER  | 1 567   |                          |                         | 1 022  | 189   | 833  |   | 33 360                               |        |
| TOTAL-MITTUE   | 14 723  |                          |                         | 5 074  | 3 020   | 2 054  |   | 86 840                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15    | 16                       | 17                           | 18           | 19           | 20                             |
|-----------------------------|----------|-------------|---------------------|------|-------|--------------------------|------------------------------|--------------|--------------|--------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | UMPER | RELATIVE<br>PERMEABILITY | MEAN<br>CORRELATION<br>DEPTH | DATE<br>TEST | DATE<br>TEST | LOCATION AND REMARKS           |
| m                           | frac     | frac        | kPa                 | PC   | frac  | frac                     | m                            |              |              |                                |
| 4.89                        | 0.153    | 0.50        | 9 490               | 48   | 0.832 | 0.67                     | 1 310.4                      | 1980         | 1980         | TCPL CONCURRENT PRODUCTION     |
| 4.63                        | 0.142    | 0.60        | 9 810               | 41   | 0.814 | 0.70                     | 1 322.6                      | 1980         | 1980         | TCPL CONCURRENT PRODUCTION     |
|                             |          |             |                     |      |       |                          |                              | 1975         | 1985         |                                |
| 2.24                        | 0.129    | 0.55        | 7 110               | 49   | 0.874 | 0.66                     | 1 398.2                      | 1968         | 1985         | CNG TCPL MATERIAL BALANCE      |
| 12.00                       | 0.062    | 0.90        | 42 920              | 46   | 1.077 | 0.73                     | 4 387.6                      | 1973         | 1982         | DOMEDOW PANALTA TCPL           |
| 0.80                        | 0.100    | 0.85        | 19 463              | 58   | 0.791 | 0.69                     | 2 081.4                      | 1979         | 1982         | A&S PROGAS                     |
| 1.43                        | 0.123    | 0.80        | 19 320              | 57   | 0.765 | 0.78                     | 2 078.0                      | 1982         | 1983         |                                |
|                             |          |             |                     |      |       |                          |                              | 1980         | 1983         |                                |
| 7.30                        | 0.092    | 0.75        | 17 170              | 85   | 0.851 | 0.73                     | 2 114.7                      | 1952         | 1984         | A&S PANALTA PROGAS             |
| 15.00                       | 0.090    | 0.70        | 19 250              | 55   | 0.783 | 0.71                     | 2 070.0                      | 1981         | 1983         | A&S PANALTA MATERIAL BALANCE   |
| 1.37                        | 0.130    | 0.75        | 15 860              | 69   | 0.850 | 0.72                     | 1 659.0                      | 1964         | 1983         |                                |
| 4.10                        | 0.170    | 0.55        | 14 180              | 51   | 0.817 | 0.72                     | 1 662.4                      | 1964         | 1983         | ASSIGNED WELL 10-23-069-03 WSM |
| 1.85                        | 0.130    | 0.65        | 17 370              | 60   | 0.858 | 0.61                     | 1 665.1                      | 1964         | 1983         | ASSIGNED WELL 02-13-069-03 WSM |
| 2.30                        | 0.080    | 0.75        | 17 390              | 52   | 0.767 | 0.84                     | 1 676.3                      | 1964         | 1983         | ASSIGNED WELL 02-36-068-03 WSM |
| 4.20                        | 0.150    | 0.65        | 17 930              | 60   | 0.860 | 0.67                     | 1 677.6                      | 1964         | 1983         | ASSIGNED WELL 06-31-068-02 WSM |
| 1.20                        | 0.170    | 0.65        | 17 310              | 51   | 0.850 | 0.70                     | 1 680.8                      | 1964         | 1984         |                                |
|                             |          |             |                     |      |       |                          |                              | 1964         | 1983         | TCPL                           |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE        | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>MOBERLY (SA) 058-04W6</b><br>TOTAL-MOBERLY       | 412   |                          |                         | 288  |   | 288  |   | 10 780                               |       |
| <b>MONITOR 034-04W4</b>                             |   |                          |                         |  |   |  |   |                                      |       |
| UPPER MANNVILLE A                                   | 1 117   | 0.80                     | 0.05                    | 849  |   |  | 37  |                                      | 4 659 |
| UPPER MANNVILLE C                                   | 38  | 0.75                     | 0.05                    | 28   |   |  | 37  |                                      | 200   |
| UPPER MANNVILLE A & C TOTAL                         | 1 155   | 0.80                     | 0.05                    | 877  | 133   | 744  | 37  | 27 848                               |       |
| OTHER   | 811   |                          |                         | 557  | 68  | 489  |   | 18 304                               |       |
| TOTAL-MONITOR                                       | 1 966   |                          |                         | 1 434  | 201   | 1 233  |   | 46 152                               |       |
| <b>MONTAG (SA) 084-06W6</b><br>TOTAL-MONTAG         | 18  |                          |                         | 13   |   | 13   |   | 511                                  |       |
| <b>MONTGOMERY (SA) 012-28W4</b><br>TOTAL-MONTGOMERY | 44  |                          |                         | 29   |   | 29   |   | 1 107                                |       |
| <b>MOONCREEK (SA) 059-05W6</b><br>TOTAL-MOONCREEK   | 336   |                          |                         | 272  |   | 272  |   | 9 366                                |       |
| <b>MOONSHINE 058-01W4</b><br>TOTAL-MOONSHINE        | 1 177   |                          |                         | 695  | 133   | 562  |   | 21 035                               |       |
| <b>MOORE 067-04W4</b><br>TOTAL-MOORE                | 894   |                          |                         | 487  | 4   | 483  |   | 18 079                               |       |
| <b>MOOSE 023-06W5</b>                               |   |                          |                         |  |   |  |   |                                      |       |
| RUNDLE A  | 4 896   | 0.60                     | 0.20                    | 2 350  | 5   | 2 345  | 37  | 87 773                               | 2 658 |
| TURNER VALLEY 227-022-06                            | 953   | 0.60                     | 0.20                    | 457  |   | 457  | 37a   | 17 106                               | 200   |
| WABAMUN 05-023-06                                   | 902   | 0.85                     | 0.40                    | 460  |   | 460  | 37  | 17 218                               | 440   |
| OTHER   | 1 067   |                          |                         | 259  |   | 259  |   | 9 694                                |       |
| TOTAL-MOOSE   | 7 818   |                          |                         | 3 526  | 5   | 3 521  |   | 131 791                              |       |
| <b>MORGAN 051-04W4</b><br>TOTAL-MORGAN              | 722   |                          |                         | 471  | 3   | 468  |   | 16 889                               |       |
| <b>MORINVILLE 055-25W4</b>                          |   |                          |                         |  |   |  |   |                                      |       |
| LOWER MANNVILLE A SOLN                              | 8   | 0.60                     | 0.05                    | 5b   |   |  | 40a   |                                      |       |
| LOWER MANNVILLE A ASSOC                             | 1 501   | 0.80                     | 0.10                    | 1 080b   | 530b  | 555  | 40a   | 22 228                               | 2 462 |
| LOWER MANNVILLE C                                   | 480   | 0.75                     | 0.08                    | 331  | 331   | < 1  | 40a   | -                                    | 839   |
| LOWER MANNVILLE E                                   | 482   | 0.85                     | 0.05                    | 390  | 362   | 28   | 40a   | 1 121                                | 1 573 |
| OTHER   | 2 280   |                          |                         | 1 467  | 423   | 1 044  |   | 41 730                               |       |
| TOTAL-MORINVILLE                                    | 4 751   |                          |                         | 3 273  | 1 646   | 1 627  |   | 65 079                               |       |
| <b>MORKILL (SA) 054-10W5</b><br>TOTAL-MORKILL       | 19  |                          |                         | 11   |   | 11   |   | 412                                  |       |
| <b>MORLEY 026-07W5</b><br>TOTAL-MORLEY              | 314   |                          |                         | 212  | 174   | 38   |   | 1 479                                |       |
| <b>MORNINGSIDE 042-28W4</b><br>TOTAL-MORNINGSIDE    | 971   |                          |                         | 639  |   | 639  |   | 23 918                               |       |
| <b>MORSE (SA) 064-09W5</b><br>TOTAL-MORSE           | 288   |                          |                         | 195  |   | 195  |   | 7 227                                |       |
| <b>MOSES (SA) 097-12W5</b><br>TOTAL-MOSES           | 4   |                          |                         | 2  |   | 2  |   | 74                                   |       |
| <b>MOSSLEIGH 021-24W4</b><br>TOTAL-MOSSLEIGH        | 209   |                          |                         | 145  | 1   | 144  |   | 5 389                                |       |
| <b>MOUNTAIN 047-22W5</b>                            |   |                          |                         |  |   |  |   |                                      |       |
| TRIASSIC B  | 594   | 0.90                     | 0.05                    | 508  | 72  | 436  | 41  | 17 789                               | 440   |
| TRIASSIC C  | 404   | 0.85                     | 0.10                    | 309  | 115   | 194  | 41  | 7 915                                | 440   |
| TURNER VALLEY A                                     | 484   | 0.75                     | 0.10                    | 327  | 68  | 259  | 41  | 10 567                               | 440   |
| OTHER   | 1 310   |                          |                         | 926  | 104   | 822  |   | 30 714                               |       |
| TOTAL-MOUNTAIN                                      | 2 792   |                          |                         | 2 070  | 359   | 1 711  |   | 66 985                               |       |
| <b>MULLIGAN 081-08W6</b><br>TOTAL-MULLIGAN          | 562   |                          |                         | 409  |   | 409  |   | 15 616                               |       |
| <b>MURIEL LAKE 059-04W4</b><br>MANNVILLE A          | 396   | 0.65                     | 0.05                    | 263  |   |  | 37  |                                      | 2 126 |



| 10                          | 11                      | 12                   | 13                         | 14              | 15                      | 16                   | 17                            | 18                   | 19                   | 20  |
|-----------------------------|-------------------------|----------------------|----------------------------|-----------------|-------------------------|----------------------|-------------------------------|----------------------|----------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE        | TEMP            | FORMER<br>LUMENES       | RELATIVE<br>DENSITY  | MEAN<br>FORMATION<br>DEPTH    | AGE<br>YEAR          | DATE<br>(EST)        | REVISION AND COMMENTS   |
| m                           | frac                    | frac                 | kPa                        | °C              | frac                    | frac                 | m                             |                      |                      |   |
| 1.53<br>1.85                | 0.299<br>0.280          | 0.70<br>0.50         | 6 830<br>6 780             | 27<br>27        | 0.865<br>0.876          | 0.63<br>0.60         | 800.2<br>811.4                | 1974<br>1977<br>1974 | 1985<br>1988<br>1985 | 12 P.   |
| 25.01<br>60.00<br>29.03     | 0.060<br>0.065<br>0.053 | 0.75<br>0.75<br>0.95 | 12 980<br>15 500<br>14 940 | 42<br>68<br>89  | 0.716<br>0.794<br>0.749 | 0.80<br>0.72<br>0.82 | 2 204.8<br>2 585.2<br>2 555.1 | 1960<br>1978<br>1977 | 1984<br>1984<br>1983 | PROGAS TCPL<br>PROGAS TCPL<br>PROGAS TCPL TOP/BASE TVD  |
| 4.91<br>4.91<br>4.27        | 0.220<br>0.159<br>0.181 | 0.70<br>0.70<br>0.70 | 7 860<br>8 030<br>8 000    | 46<br>46<br>46  | 0.869<br>0.863<br>0.867 | 0.67<br>0.65<br>0.63 | 1 100.8<br>1 121.3<br>1 082.0 | 1952<br>1952<br>1951 | 1984<br>1984<br>1982 | NORCEN PANALTA CONCURRENT PRODUCTION<br>NORCEN PANALTA CONCURRENT PRODUCTION<br>MATERIAL BALANCE<br>NORCEN PRODUCTION DECLINE |
| 10.95<br>9.50<br>17.50      | 0.073<br>0.050<br>0.030 | 0.80<br>0.80<br>0.90 | 28 270<br>28 280<br>29 460 | 116<br>96<br>99 | 0.975<br>0.903<br>0.967 | 0.62<br>0.63<br>0.77 | 3 083.4<br>3 225.0<br>3 342.5 | 1956<br>1980<br>1980 | 1973<br>1985<br>1984 | PANALTA<br>TOP/BASE TVD<br>PANALTA  |
| 1.71                        | 0.300                   | 0.55                 | 2 860                      | 16              | 0.950                   | 0.57                 | 389.8                         | 1952                 | 1980                 | MATERIAL BALANCE  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>MURIEL LAKE 059-04W4<br/>(CONTINUED)</b>  |   |                          |                         |  |   |  |   |                                      |        |
| MANNVILLE A                                  | 188   | 0.70                     | 0.05                    | 125  |   |  | 37  |                                      | 1 794  |
| MANNVILLE A TOTAL                            | 584   | 0.70                     | 0.05                    | 388  | 184   | 204  | 37  | 7 636                                |        |
| OTHER  | 118   |                          |                         | 72   | 1   | 71   |   | 2 655                                |        |
| TOTAL-MURIEL LAKE                            | 702   |                          |                         | 460  | 185   | 275  |   | 10 291                               |        |
| <b>MUSIDDRA 052-10W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MUSIDDRA                               | 745   |                          |                         | 529  | 104   | 425  |   | 16 147                               |        |
| <b>MUSIKI (SA) 044-19W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MUSIKI                                 | 148   |                          |                         | 63   |   | 63   |   | 2 453                                |        |
| <b>MUSKWA (SA) 085-25W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MUSKWA                                 | 16  |                          |                         | 11   |   | 11   |   | 403                                  |        |
| <b>MUSREAU 062-06W6</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MUSREAU                                | 723   |                          |                         | 514  | 68  | 446  |   | 17 944                               |        |
| <b>MYSTERY 060-07W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-MYSTERY                                | 51  |                          |                         | 34   |   | 34   |   | 1 290                                |        |
| <b>NAMAKA 022-24W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NAMAKA                                 | 227   |                          |                         | 160  |   | 160  |   | 6 050                                |        |
| <b>NAMEPI CREEK (SA) 058-21W4</b>            |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NAMEPI CREEK                           | 63  |                          |                         | 40   |   | 40   |   | 1 498                                |        |
| <b>NAMUR (SA) 096-15W4</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NAMUR                                  | 32  |                          |                         | 17   |   | 17   |   | 637                                  |        |
| <b>NANTON (SA) 016-29W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NANTON                                 | 128   |                          |                         | 91   |   | 91   |   | 3 474                                |        |
| <b>NARRAWAY 064-12W6</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| BELLOY 1 03-063-11                           | 463   | 0.80                     | 0.05                    | 352  |   | 352  | 41  | 14 495                               | 440    |
| OTHER  | 74  |                          |                         | 56   |   | 56   |   | 2 201                                |        |
| TOTAL-NARRAWAY                               | 537   |                          |                         | 408  |   | 408  |   | 16 696                               |        |
| <b>NARROWS (SA) 076-07W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NARROWS                                | 49  |                          |                         | 30   |   | 30   |   | 1 123                                |        |
| <b>NAYLOR (SA) 097-24W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NAYLOR                                 | 31  |                          |                         | 20   |   | 20   |   | 786                                  |        |
| <b>NEERLANDIA 061-05W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NEERLANDIA                             | 292   |                          |                         | 193  |   | 193  |   | 7 878                                |        |
| <b>NEGUS (SA) 060-26W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NEGUS                                  | 105   |                          |                         | 76   |   | 76   |   | 2 845                                |        |
| <b>NELSON 044-25W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NELSON                                 | 604   |                          |                         | 390  |   | 390  |   | 16 622                               |        |
| <b>NESTOW 060-24W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE A                            | 528   | 0.70                     | 0.05                    | 351  | 143   | 208  | 37  | 7 785                                | 573    |
| LOWER MANNVILLE H                            | 473   | 0.80                     | 0.05                    | 361  | 180   | 181  | 37  | 6 775                                | 1 558  |
| OTHER  | 982   |                          |                         | 652  | 160   | 492  |   | 18 400                               |        |
| TOTAL-NESTOW                                 | 1 983   |                          |                         | 1 364  | 483   | 881  |   | 32 960                               |        |
| <b>NETOOK 063-10W6</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NETOOK                                 | 941   |                          |                         | 676  |   | 676  |   | 25 302                               |        |
| <b>NEVIS 039-22W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER C                                | 948   | 0.65                     | 0.05                    | 586  | 115   | 471  | 37  | 17 630                               | 6 200  |
| BLAIRMORE A ASSOC                            | 2 237   | 0.75                     | 0.10                    | 1 510  |   | 1 510  | 37  | 56 519                               | 4 647  |
| DEVONIAN ASSOC                               |   | 0.55                     | 0.15                    |  |   |  | 37  |                                      | 6 285  |
| DEVONIAN ASSOC                               |   | 0.55                     | 0.15                    |  |   |  | 37  |                                      | 13 217 |
| DEVONIAN TOTAL                               | 36 182  | 0.55                     | 0.15                    | 16 915   | 16 912  | 3  | 37  | 112                                  |        |
| OTHER  | 2 639   |                          |                         | 1 659  | 45  | 1 614  |   | 60 410                               |        |
| TOTAL-NEVIS                                  | 42 006  |                          |                         | 20 670   | 17 072  | 3 598  |   | 134 671                              |        |



| 10                             | 11                               | 12                           | 13                                  | 14                   | 15                               | 16                             | 17                                     | 18                           | 19                           | 20   |
|--------------------------------|----------------------------------|------------------------------|-------------------------------------|----------------------|----------------------------------|--------------------------------|--|------------------------------|------------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS    | POROSITY                         | GAS<br>SATN                  | INITIAL<br>PRESSURE                 | TEMP                 | (CMPIR)                          | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH             | WEL<br>YEAR                  | DATE<br>LAST<br>RE-TESTED    | DISPOSITION AND REMARKS  |
| m                              | frac                             | frac                         | hPa                                 | OC                   | frac                             | frac                           | m                                      |                              |                              |  |
| 1.87                           | 0.250                            | 0.70                         | 3 100                               | 17                   | 0.952                            | 0.57                           | 408.4                                  | 1982<br>1982                 | 1977<br>1980                 |  |
| 9.87                           | 0.075                            | 0.75                         | 31 030                              | 17                   | 1.048                            | 0.56                           | 4 349.5                                | 1977                         | 1978                         | PROGAS BER   |
| 1.96<br>3.63                   | 0.200<br>0.219                   | 0.65<br>0.65                 | 6 520<br>5 820                      | 21<br>40             | 0.870<br>0.900                   | 0.59<br>0.61                   | 812.6<br>882.7                         | 1970<br>1952                 | 1976<br>1978                 | TCPL MATERIAL BALANCE<br>TCPL  |
| 5.96<br>2.78<br>17.95<br>17.90 | 0.250<br>0.199<br>0.062<br>0.076 | 0.40<br>0.70<br>0.85<br>0.85 | 2 020<br>11 160<br>16 150<br>16 170 | 22<br>43<br>56<br>61 | 0.950<br>0.808<br>0.795<br>0.825 | 0.56<br>0.67<br>0.77<br>0.75   | 491.1<br>1 378.8<br>1 686.7<br>1 675.8 | 1977<br>1952<br>1952<br>1952 | 1985<br>1985<br>1985<br>1985 | PANALTA TCPL PART OF BR POOL NO.1<br>DOMEDOW PROGAS TCPL<br>PRODUCTION DECLINE OIL POOL DEPLETED<br>PRODUCTION DECLINE OIL POOL DEPLETED<br>PANALTA TCPL OIL POOL DEPLETED |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE    | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>NEW NORWAY 044-22W4</b><br>TOTAL-NEW NORWAY  | 567   |                          |                         | 265  | 44  | 221  |   | 8 326                                |        |
| <b>NEWAND 065-04W6</b><br>BLUESKY A             | 1 117   | 0.75                     | 0.10                    | 753  | 67  | 686  | 42  | 29 018                               | 3 507  |
| OTHER   | 218   |                          |                         | 151  | 75  | 76   |   | 3 215                                |        |
| TOTAL-NEWAND                                    | 1 335   |                          |                         | 904  | 142   | 762  |   | 32 233                               |        |
| <b>NEWBROOK 062-20W4</b><br>UPPER MANNVILLE C   | 389   | 0.85                     | 0.05                    | 314  | 47  | 267  | 37  | 9 994                                | 986    |
| OTHER   | 1 730   |                          |                         | 1 140  | 253   | 887  |   | 34 272                               |        |
| TOTAL-NEWBROOK                                  | 2 119   |                          |                         | 1 454  | 300   | 1 154  |   | 44 266                               |        |
| <b>NEWBY 081-05W4</b><br>MCMURRAY A             | 1 249   | 0.50                     | 0.05                    | 594  | 20  | 574  | 43  | 24 711                               | 5 008  |
| OTHER   | 2 072   |                          |                         | 1 068  | 1   | 1 067  |   | 45 454                               |        |
| TOTAL-NEWBY                                     | 3 321   |                          |                         | 1 662  | 21  | 1 641  |   | 70 165                               |        |
| <b>NEWELL 017-14W4</b><br>MILK RIVER A          | 1 438   | 0.70                     | 0.05                    | 956  |   |  | 36a   |                                      | 10 956 |
| MEDICINE HAT A                                  | 105   | 0.70                     | 0.03                    | 71   |   |  | 36a   |                                      | 3 293  |
| MEDICINE HAT C                                  | 90  | 0.50                     | 0.03                    | 44   |   |  | 36a   |                                      | 2 029  |
| MEDICINE HAT D                                  | 38  | 0.50                     | 0.03                    | 18   |   |  | 36a   |                                      | 1 383  |
| SE ALTA GAS SYS(MU) TOTAL                       | 1 671   | 0.70                     | 0.05                    | 1 089  | 357   | 732  | 36a   | 26 579                               |        |
| OTHER   | 350   |                          |                         | 243  | 21  | 222  |   | 8 447                                |        |
| TOTAL-NEWELL                                    | 2 021   |                          |                         | 1 332  | 378   | 954  |   | 35 026                               |        |
| <b>NEWTON 058-03W5</b><br>TOTAL-NEWTON          | 217   |                          |                         | 147  |   | 147  |   | 5 514                                |        |
| <b>NINA (SA) 092-20W5</b><br>TOTAL-NINA         | 8   |                          |                         | 5  |   | 5  |   | 200                                  |        |
| <b>NIOBE 035-27W4</b><br>TOTAL-NIOBE            | 46  |                          |                         | 22   |   | 22   |   | 824                                  |        |
| <b>NIPIN 074-21W4</b><br>TOTAL-NIPIN            | 3   |                          |                         | 1  |   | 1  |   | 37                                   |        |
| <b>NIPISI 079-08W5</b><br>GILWOOD A SOLN        | 7 410   | 0.46                     | 0.45                    | 1 875  | 1 121   | 754  | 43  | 32 460                               |        |
| OTHER   | 285   |                          |                         | 119  | -56   | 175  |   | 7 453                                |        |
| TOTAL-NIPISI                                    | 7 695   |                          |                         | 1 994  | 1 065   | 929  |   | 39 913                               |        |
| <b>NISKU (SA) 050-25W4</b><br>TOTAL-NISKU       | 147   |                          |                         | 93   |   | 93   |   | 3 934                                |        |
| <b>NITON 054-13W5</b><br>BASAL QUARTZ A ASSOC   | 1 351   | 0.75                     | 0.10                    | 912  | 317   | 595  | 40  | 23 830                               | 3 284  |
| BASAL QUARTZ B SOLN                             | 752   | 0.40                     | 0.30                    | 211b   |   |  | 40  |                                      |        |
| BASAL QUARTZ B ASSOC                            | 10 223  | 0.75                     | 0.10                    | 6 900b   | 1 613b  | 5 498  | 40  | 220 195                              | 14 727 |
| OTHER   | 2 140   |                          |                         | 1 430  | 207   | 1 223  |   | 49 160                               |        |
| TOTAL-NITON                                     | 14 466  |                          |                         | 9 453  | 2 137   | 7 316  |   | 293 185                              |        |
| <b>NIXON 072-16W4</b><br>LOWER MANNVILLE E      | 920   | 0.70                     | 0.05                    | 612  | 137   | 475  | 37  | 17 604                               | 20 420 |
| GROSMONT A                                      | 3 158   | 0.50                     | 0.05                    | 1 500  | 1 231   | 269  | 37  | 10 069                               | 28 753 |
| OTHER   | 346   |                          |                         | 185  | 35  | 150  |   | 5 556                                |        |
| TOTAL-NIXON                                     | 4 424   |                          |                         | 2 297  | 1 403   | 894  |   | 33 229                               |        |
| <b>NOEL (SA) 081-16W5</b><br>TOTAL-NOEL         | 19  |                          |                         | 12   |   | 12   |   | 449                                  |        |
| <b>NORDEGG 041-17W5</b><br>TRIASSIC A           | 448   | 0.85                     | 0.05                    | 361  |   |  | 37  |                                      | 1 192  |
| RUNDLE A  | 383   | 0.55                     | 0.05                    | 200  |   |  | 37  |                                      | 746    |
| TRIASSIC A & RUNDLE A TOTAL                     | 831   | 0.70                     | 0.05                    | 561  | 194   | 367  | 37  | 13 737                               |        |
| TOTAL-NORDEGG                                   | 831   |                          |                         | 561  | 194   | 367  |   | 13 737                               |        |
| <b>NORMANDVILLE 080-22W5</b><br>MISSISSIPPIAN A | 606   | 0.90                     | 0.05                    | 518  | 354   | 164  | 39  | 6 445                                | 732    |
| OTHER   | 1 430   |                          |                         | 1 014  | 131   | 883  |   | 34 678                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15               | 16                             | 17                         | 18           | 19                       | 20  |
|-----------------------------|----------|-------------|---------------------|------|------------------|--------------------------------|----------------------------|--------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | LOGGED<br>LENGTH | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DISC<br>DATE | DATE<br>LAST<br>PRODUCED | DESCRIPTION AND REMARKS                           |
| m                           | frac     | frac        | kPa                 | sec  | ft               | frac                           | m                          |              |                          |   |
| 2.94                        | 0.090    | 0.65        | 20 240              | 94   | 0.847            | 0.73                           | 2 355.4                    | 1978         | 1982                     | PANALTA   |
| 3.54                        | 0.294    | 0.75        | 4 720               | 21   | 0.803            | 0.58                           | 376.7                      | 1976         | 1984                     | PANALTA   |
| 7.31                        | 0.297    | 0.65        | 1 720               | 14   | 0.964            | 0.56                           | 203.8                      | 1975         | 1983                     | PANALTA TCPL                                      |
| 5.19                        | 0.154    | 0.55        | 3 140               | 16   | 0.938            | 0.58                           | 355.7                      | 1980         | 1983                     | PART OF MULE RIV POOL NO. 1 PRODUCTION<br>DECLINE |
| 0.73                        | 0.170    | 0.55        | 4 310               | 17   | 0.913            | 0.57                           | 487.7                      | 1984         | 1978                     | PART OF MED HAT POOL NO. 1                        |
| 1.13                        | 0.139    | 0.60        | 4 450               | 19   | 0.921            | 0.57                           | 487.7                      | 1973         | 1982                     | PART OF MED HAT POOL NO. 3                        |
| 0.70                        | 0.139    | 0.60        | 4 450               | 19   | 0.921            | 0.57                           | 487.7                      | 1973         | 1982                     | PART OF MED HAT POOL NO. 4                        |
|                             |          |             |                     |      |                  |                                |                            | 1984         | 1983                     | PANALTA TCPL                                      |
|                             |          |             |                     |      |                  |                                |                            | 1985         | 1984                     | TCPL  |
| 2.53                        | 0.140    | 0.70        | 16 060              | 71   | 0.800            | 0.73                           | 1 939.1                    | 1965         | 1985                     | TCPL CONCURRENT PRODUCTION                        |
|                             |          |             |                     |      |                  | 0.74                           |                            | 1985         | 1985                     | DOMEDOW TCPL CONCURRENT PRODUCTION                |
| 4.59                        | 0.143    | 0.65        | 16 400              | 77   | 0.819            | 0.74                           | 1 940.1                    | 1965         | 1985                     | DOMEDOW TCPL CONCURRENT PRODUCTION                |
| 2.05                        | 0.240    | 0.40        | 2 280               | 24   | 0.954            | 0.57                           | 445.6                      | 1969         | 1985                     | NUL CWNGNU  |
| 9.46                        | 0.100    | 0.50        | 2 340               | 27   | 0.955            | 0.57                           | 459.6                      | 1969         | 1982                     | NUL CWNGNU  |
| 5.84                        | 0.058    | 0.85        | 12 620              | 46   | 0.865            | 0.58                           | 1 489.6                    | 1960         | 1982                     |   |
| 10.42                       | 0.045    | 0.85        | 12 690              | 53   | 0.862            | 0.58                           | 1 492.8                    | 1960         | 1984                     |   |
|                             |          |             |                     |      |                  |                                |                            | 1960         | 1984                     | PROGAS TCPL                                       |
| 3.94                        | 0.271    | 0.65        | 10 820              | 38   | 0.829            | 0.64                           | 1 047.3                    | 1956         | 1973                     | NUL   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>NORMANDVILLE 080-22W5<br/>(CONTINUED)</b> |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NORMANDVILLE                           | 2 036   |                          |                         | 1 532  | 485   | 1 047  |   | 41 123                               |        |
| <b>NORRIS 053-18W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| MIDDLE VIKING A                              | 534   | 0.80                     | 0.05                    | 406  | 42  | 364  | 37  | 13 490                               | 8 668  |
| LOWER VIKING A                               | 636   | 0.80                     | 0.10                    | 458  |   | 458  | 40  | 18 343                               | 7 037  |
| OTHER  | 3 325   |                          |                         | 2 119  | 426   | 1 693  |   | 65 978                               |        |
| TOTAL-NORRIS                                 | 4 495   |                          |                         | 2 983  | 468   | 2 515  |   | 97 811                               |        |
| <b>NORTHVILLE 052-10W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-NORTHVILLE                             | 700   |                          |                         | 462  | 19  | 443  |   | 17 356                               |        |
| <b>NOSEHILL 055-20W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| D-3 A  | 949   | 0.70                     | 0.05                    | 631  | 25  | 606  | 37  | 22 683                               | 64     |
| OTHER  | 667   |                          |                         | 460  |   | 460  |   | 18 132                               |        |
| TOTAL-NOSEHILL                               | 1 616   |                          |                         | 1 091  | 25  | 1 066  |   | 40 815                               |        |
| <b>OAK 083-06W6</b>                          |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-OAK                                    | 179   |                          |                         | 121  |   | 121  |   | 4 529                                |        |
| <b>OBED 054-23W5</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| D-2 A  | 6 564   | 0.75                     | 0.35                    | 3 200  | 2   | 3 198  | 40  | 126 897                              | 1 501  |
| OTHER  | 875   |                          |                         | 597  |   | 597  |   | 23 405                               |        |
| TOTAL-OBED                                   | 7 439   |                          |                         | 3 797  | 2   | 3 795  |   | 150 302                              |        |
| <b>OBERLIN 038-21W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| MANNVILLE                                    | 610   | 0.70                     | 0.10                    | 384  | 383   | 1  | 41  | 41                                   | 789    |
| OTHER  | 89  |                          |                         | 57   |   | 57   |   | 2 289                                |        |
| TOTAL-OBERLIN                                | 699   |                          |                         | 441  | 383   | 58   |   | 2 330                                |        |
| <b>OCHRE (SA) 090-16W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-OCHRE                                  | 20  |                          |                         | 14   |   | 14   |   | 524                                  |        |
| <b>OGSTON 089-10W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-OGSTON                                 | 99  |                          |                         | 55   |   | 55   |   | 2 058                                |        |
| <b>OKOTOKS 021-28W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| WABAMUN B                                    | 23 590  | 0.65                     | 0.55                    | 6 900  | 3 072   | 3 828  | 37  | 141 866                              | 19 660 |
| OTHER  | 1 090   |                          |                         | 599  | 21  | 578  |   | 22 463                               |        |
| TOTAL-OKOTOKS                                | 24 680  |                          |                         | 7 499  | 3 093   | 4 406  |   | 164 329                              |        |
| <b>OLDMAN 055-21W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TRIASSIC 055-21                              | 2 084   | 0.80                     | 0.10                    | 1 500  |   | 1 500  | 39  | 58 950                               | 2 448  |
| OTHER  | 902   |                          |                         | 599  |   | 599  |   | 22 792                               |        |
| TOTAL-OLDMAN                                 | 2 986   |                          |                         | 2 099  |   | 2 099  |   | 81 742                               |        |
| <b>OLSON (SA) 056-01W6</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-OLSON                                  | 93  |                          |                         | 63   |   | 63   |   | 2 358                                |        |
| <b>OMEGA 046-01W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-OMEGA                                  | 292   |                          |                         | 203  |   | 203  |   | 7 599                                |        |
| <b>OPABIN 044-18W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-OPABIN                                 | 331   |                          |                         | 238  |   | 238  |   | 8 642                                |        |
| <b>OPEN CREEK 042-05W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| BASAL QUARTZ A                               | 394   | 0.90                     | 0.10                    | 318  | 38  | 280  | 39a   | 10 900                               | 200    |
| OTHER  | 1 330   |                          |                         | 895  | 85  | 810  |   | 32 558                               |        |
| TOTAL-OPEN CREEK                             | 1 724   |                          |                         | 1 213  | 123   | 1 090  |   | 43 458                               |        |
| <b>ORCHID 088-20W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ORCHID                                 | 15  |                          |                         | 7  |   | 7  |   | 259                                  |        |
| <b>ORION 007-07W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-ORION                                  | 311   |                          |                         | 222  | 24  | 198  |   | 7 378                                |        |
| <b>OSBORN 089-07W6</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-OSBORN                                 | 252   |                          |                         | 160  |   | 160  |   | 6 288                                |        |
| <b>OSI (SA) 096-23W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-OSI                                    | 129   |                          |                         | 81   |   | 81   |   | 3 032                                |        |



| 10                          | 11             | 12           | 13                  | 14       | 15             | 16                             | 17                         | 18           | 19                         | 20   |
|-----------------------------|----------------|--------------|---------------------|----------|----------------|--------------------------------|----------------------------|--------------|----------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY       | GAS<br>SATN  | INITIAL<br>PRESSURE | TIME     | PERMEABILITY   | RAW GAS<br>RELATIVE<br>DENSITY | SEEN<br>FORMATION<br>DEPTH | DISC<br>YEAR | DATE<br>LAST<br>CALCULATED | EXPLANATION AND REMARKS                          |
| m                           | frac           | frac         | kPa                 | sec      | frac           | frac                           | m                          |              |                            |  |
| 0.77<br>1.13                | 0.252<br>0.373 | 0.60<br>0.55 | 4 950<br>4 960      | 24<br>25 | 0.895<br>0.889 | 0.63<br>0.61                   | 671.1<br>715.1             | 1977<br>1973 | 1983<br>1983               | TCPL<br>TCPL                                     |
| 93.40                       | 0.050          | 0.85         | 63 980              | 94       | 1.330          | 0.59                           | 4 020.9                    | 1972         | 1979                       | PROGAS   |
| 30.34                       | 0.067          | 0.80         | 38 470              | 135      | 0.997          | 0.80                           | 4 008.2                    | 1956         | 1985                       | TCPL   |
| 2.26                        | 0.260          | 0.75         | 5 860               | 54       | 0.903          | 0.69                           | 1 323.1                    | 1949         | 1983                       | AGS PWGE MATERIAL BALANCE                        |
| 11.65                       | 0.051          | 0.80         | 24 800              | 80       | 0.734          | 0.90                           | 2 653.2                    | 1951         | 1985                       | OWNGNUL KANNGAZ PANALIA TCPL MATERIAL<br>BALANCE |
| 3.83                        | 0.140          | 0.80         | 24 540              | 106      | 0.928          | 0.66                           | 2 896.9                    | 1977         | 1984                       | PROGAS TCPL                                      |
| 11.72                       | 0.140          | 0.65         | 19 330              | 83       | 0.825          | 0.71                           | 2 181.1                    | 1967         | 1973                       | AGS  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE            | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>OWLSEYE 058-10W4</b><br>TOTAL-OWLSEYE                | 678   |                          |                         | 445  | 18  | 427  |   | 16 301                               |        |
| <b>OXLEY (SA) 013-28W4</b><br>TOTAL-OXLEY               | 296   |                          |                         | 211  |   | 211  |   | 7 898                                |        |
| <b>OYEN 029-05W4</b><br>VIKING C                        | 505   | 0.80                     | 0.05                    | 384  | 327   | 57   | 37  | 2 112                                | 983    |
| VIKING A  | 732   | 0.60                     | 0.05                    | 417  |   |  | 37  |                                      | 4 440  |
| DETRITAL C  | 342   | 0.50                     | 0.05                    | 162  |   |  | 37  |                                      | 757    |
| VIKING A & DETRITAL C TOTAL                             | 1 074   | 0.55                     | 0.05                    | 579  | 567   | 12   | 37  | 445                                  |        |
| OTHER   | 1 176   |                          |                         | 743  | 342   | 401  |   | 14 974                               |        |
| TOTAL-OYEN  | 2 755   |                          |                         | 1 706  | 1 236   | 470  |   | 17 531                               |        |
| <b>PADDLE RIVER 057-08W5</b><br>JURASSIC DETR RUNDLE    | 13 285  | 0.90                     | 0.08                    | 11 000   | 6 219   | 4 781  | 42 <sup>a</sup>                             | 202 236                              | 18 434 |
| RUNDLE ASSOC  | 1 147   | 0.85                     | 0.10                    | 876  | 11  | 865  | 40  | 34 323                               | 4 408  |
| OTHER   | 907   |                          |                         | 586  | 10  | 576  |   | 23 966                               |        |
| TOTAL-PADDLE RIVER                                      | 15 339  |                          |                         | 12 462   | 6 240   | 6 222  |   | 260 525                              |        |
| <b>PAGEANT 018-21W4</b><br>TOTAL-PAGEANT                | 447   |                          |                         | 308  |   | 308  |   | 11 740                               |        |
| <b>PAKOWKI LAKE 004-07W4</b><br>BOW ISLAND A            | 502   | 0.80                     | 0.05                    | 381  | 361   | 20   | 35  | 704                                  | 5 335  |
| BOW ISLAND B  | 372   | 0.85                     | 0.05                    | 301  | 202   | 99   | 35  | 3 484                                | 1 575  |
| JURASSIC B  | 462   | 0.85                     | 0.05                    | 372  | 7   | 365  | 37  | 13 662                               | 200    |
| OTHER   | 335   |                          |                         | 233  | 5   | 228  |   | 8 423                                |        |
| TOTAL-PAKOWKI LAKE                                      | 1 671   |                          |                         | 1 287  | 575   | 712  |   | 26 273                               |        |
| <b>PALLISER 062-10W6</b><br>TOTAL-PALLISER              | 74  |                          |                         | 50   |   | 50   |   | 1 872                                |        |
| <b>PANTHER RIVER 030-10W5</b><br>RUNDLE A               | 767   | 0.75                     | 0.15                    | 489  | 11  | 478  | 51 <sup>a</sup>                             | 24 149                               | 200    |
| RUNDLE B  | 780   | 0.75                     | 0.20                    | 468  |   | 468  | 38  | 17 696                               | 200    |
| TURNER VALLEY 29-029-10                                 | 2 933   | 0.75                     | 0.25                    | 1 650  |   | 1 650  | 38  | 62 387                               | 880    |
| OTHER   | 3 411   |                          |                         | 235  |   | 235  |   | 8 885                                |        |
| TOTAL-PANTHER RIVER                                     | 7 891   |                          |                         | 2 842  | 11  | 2 831  |   | 113 116                              |        |
| <b>PARADISE 047-02W4</b><br>TOTAL-PARADISE              | 285   |                          |                         | 188  |   | 188  |   | 6 713                                |        |
| <b>PARFLESH 025-22W4</b><br>TOTAL-PARFLESH              | 1 113   |                          |                         | 625  | 100   | 525  |   | 20 185                               |        |
| <b>PARKER 070-05W5</b><br>TOTAL-PARKER                  | 164   |                          |                         | 95   | 77  | 18   |   | 721                                  |        |
| <b>PARKLAND 015-28W4</b><br>TOTAL-PARKLAND              | 497   |                          |                         | 350  | 38  | 312  |   | 11 678                               |        |
| <b>PARKLAND NORTHEAST 015-27W4</b><br>LOWER MANNVILLE A | 534   | 0.75                     | 0.10                    | 361  | 31  | 330  | 38  | 12 477                               | 792    |
| MOUNT HEAD 015-26                                       | 733   | 0.90                     | 0.10                    | 594  |   | 594  | 38  | 22 459                               | 810    |
| OTHER   | 868   |                          |                         | 609  | 204   | 405  |   | 15 313                               |        |
| TOTAL-PARKLAND NORTHEAST                                | 2 135   |                          |                         | 1 564  | 235   | 1 329  |   | 50 249                               |        |
| <b>PASS 060-20W5</b><br>TOTAL-PASS                      | 677   |                          |                         | 454  | 51  | 403  |   | 16 140                               |        |
| <b>PASTECHO (SA) 079-06W5</b><br>TOTAL-PASTECHO         | 27  |                          |                         | 18   |   | 18   |   | 674                                  |        |
| <b>PAXON 065-21W4</b><br>TOTAL-PAXON                    | 87  |                          |                         | 53   |   | 53   |   | 1 983                                |        |
| <b>PEACOCK 014-27W4</b><br>TOTAL-PEACOCK                | 46  |                          |                         | 31   | 7   | 24   |   | 898                                  |        |
| <b>PEAK 119-05W6</b><br>TOTAL-PEAK                      | 33  |                          |                         | 22   |   | 22   |   | 947                                  |        |



| 10                          | 11                      | 12                   | 13                         | 14               | 15                      | 16                             | 17                            | 18                   | 19                       | 20  |
|-----------------------------|-------------------------|----------------------|----------------------------|------------------|-------------------------|--------------------------------|-------------------------------|----------------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE        | TEMP             | LUMPNESS                | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH    | WELL<br>YEAR         | DATE<br>LAST<br>REVIEWED | PRODUCTION AND RESERVES   |
| m                           | frac                    | frac                 | kPa                        | °C               | frac                    | frac                           | m                             |                      |                          |   |
| 2.02<br>1.26<br>2.77        | 0.290<br>0.301<br>0.287 | 0.50<br>0.55<br>0.65 | 6 690<br>6 670<br>8 200    | 32<br>34<br>34   | 0.892<br>0.893<br>0.870 | 0.58<br>0.58<br>0.58           | 787.0<br>765.1<br>814.2       | 1951<br>1963<br>1963 | 1985<br>1985<br>1985     | TEPL PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>PRODUCTION DECLINE<br>TEPL     |
| 6.20<br>4.38                | 0.145<br>0.076          | 0.35<br>0.60         | 12 230<br>12 240           | 60<br>55         | 0.815<br>0.815          | 0.70<br>0.68                   | 1 529.9<br>1 551.4            | 1956<br>1956         | 1983<br>1977             | NUL CWNQNL MATERIAL BALANCE<br>NUL CWNQNL CONCURRENT PRODUCTION B11<br>DEPLETED |
| 1.03<br>2.09<br>8.95        | 0.213<br>0.277<br>0.250 | 0.70<br>0.70<br>0.85 | 5 480<br>5 720<br>11 020   | 24<br>33<br>33   | 0.908<br>0.914<br>0.845 | 0.59<br>0.58<br>0.59           | 663.6<br>702.0<br>986.6       | 1955<br>1971<br>1974 | 1981<br>1972<br>1974     | CMG<br>CMG<br>CMG   |
| 35.00<br>48.00<br>28.57     | 0.060<br>0.040<br>0.047 | 0.85<br>0.85<br>0.85 | 24 130<br>30 790<br>39 280 | 78<br>104<br>102 | 0.910<br>0.972<br>1.021 | 0.67<br>0.70<br>0.75           | 3 936.6<br>4 556.5<br>4 578.4 | 1958<br>1973<br>1978 | 1984<br>1984<br>1984     | TOP/BASE TVD<br>TOP/BASE TVD<br>TOP/BASE TVD                                    |
| 5.90<br>4.95                | 0.132<br>0.123          | 0.55<br>0.75         | 15 560<br>19 800           | 65<br>64         | 0.831<br>0.843          | 0.66<br>0.66                   | 2 273.1<br>2 113.3            | 1979<br>1953         | 1984<br>1979             | PRDGAS  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| PEARL 030-16W4<br>TOTAL-PEARL                | 134   |                          |                         | 83   |   | 83   |   | 3 118                                |        |
| PEAVEY 056-24W4<br>TOTAL-PEAVEY              | 496   |                          |                         | 304  | 138   | 166  |   | 6 243                                |        |
| PEAVINE (SA) 075-20W5<br>TOTAL-PEAVINE       | 11  |                          |                         | 7  |   | 7  |   | 262                                  |        |
| PECD 047-15W5<br>GETHING A                   | 4 444   | 0.75                     | 0.10                    | 3 000  | 514   | 2 486  | 39  | 97 700                               | 4 733  |
| JURASSIC A                                   | 625   | 0.90                     | 0.10                    | 507  | 140   | 367  | 37  | 13 737                               | 1 152  |
| JURASSIC B                                   | 1 511   | 0.75                     | 0.10                    | 1 020  |   | 1 020  | 37  | 38 179                               | 1 971  |
| OTHER  | 1 943   |                          |                         | 1 314  | 190   | 1 124  |   | 43 754                               |        |
| TOTAL-PECD                                   | 8 523   |                          |                         | 5 841  | 844   | 4 997  |   | 193 370                              |        |
| PEDIGREE (SA) 100-12W6<br>TOTAL-PEDIGREE     | 232   |                          |                         | 148  |   | 148  |   | 5 551                                |        |
| PEDLEY (SA) 053-25W5<br>TOTAL-PEDLEY         | 1 282   |                          |                         | 865  |   | 865  |   | 33 369                               |        |
| PEERLESS 079-22W4<br>TOTAL-PEERLESS          | 98  |                          |                         | 61   |   | 61   |   | 2 261                                |        |
| PEIGAN 008-08W4<br>TOTAL-PEIGAN              | 145   |                          |                         | 108  |   | 108  |   | 4 047                                |        |
| PELICAN 079-24W4<br>TOTAL-PELICAN            | 658   |                          |                         | 400  |   | 400  |   | 14 849                               |        |
| PEMBINA 048-07W5<br>KEY BELLY RIVER A        | 1 193   | 0.70                     | 0.05                    | 793  | 624   | 169  | 40  | 6 768                                | 2 207  |
| BELLY RIVER SS                               | 464   | 0.75                     | 0.05                    | 330  | 80  | 250  | 40  | 10 013                               | 1 209  |
| BELLY RIVER ZZ                               | 858   | 0.75                     | 0.10                    | 579  | 249   | 330  | 40a   | 13 217                               | 2 675  |
| BELLY RIVER A2A SOLN                         | 13  | 0.45                     | 0.10                    | 5b   |   | 40   | 40  |                                      |        |
| BELLY RIVER A2A ASSOC                        | 736   | 0.75                     | 0.10                    | 497b   | 6b  | 496  | 40  | 19 865                               | 1 581  |
| CARDIUM SOLN                                 | 113 280   | 0.34                     | 0.47                    | 20 400   | 10 909  | 9 491  | 42a   | 401 469                              |        |
| LOB GLAUCONITIC A                            | 4 390   | 0.70                     | 0.06                    | 2 890  | 1 870   | 1 020  | 42  | 42 758                               | 7 748  |
| LOB GLAUCONITIC E                            | 3 581   | 0.90                     | 0.10                    | 2 900  |   |  | 42a   |                                      | 3 661  |
| LOBSTICK GLAUC G                             | 974   | 0.90                     | 0.10                    | 789  |   |  | 42a   |                                      | 1 758  |
| LOB GLAUCONITIC E & G TOTAL                  | 4 555   | 0.90                     | 0.10                    | 3 689  | 1 491   | 2 198  | 42a   | 92 975                               |        |
| GLAUCONITIC I                                | 3 921   | 0.70                     | 0.06                    | 2 580  |   |  | 42a   |                                      | 4 541  |
| LOBSTICK GLAUC D                             | 195   | 0.70                     | 0.05                    | 130  |   |  | 42  |                                      | 200    |
| GLAUC I & LOB GLAUC D TOTAL                  | 4 116   | 0.70                     | 0.05                    | 2 710  | 951   | 1 759  | 42a   | 73 737                               |        |
| NISKU P SOLN                                 | 791   | 0.75                     | 0.30                    | 415  | 95  | 320  | 40  | 12 816                               |        |
| OTHER  | 22 177  |                          |                         | 11 236   | -930  | 12 166   |   | 494 715                              |        |
| TOTAL-PEMBINA                                | 152 573   |                          |                         | 43 544   | 15 345  | 28 199   |   | 1 168 333                            |        |
| PENDANT D'OREILLE 004-09W4<br>BOW ISLAND B   | 453   | 0.75                     | 0.05                    | 323  | 289   | 34   | 35  | 1 196                                | 4 557  |
| BOW ISLAND                                   |   | 0.85                     | 0.05                    |  |   |  | 35  |                                      | 17 914 |
| BOW ISLAND F                                 |   | 0.85                     | 0.05                    |  |   |  | 35  |                                      | 8 378  |
| BOW ISLAND G                                 |   | 0.85                     | 0.05                    |  |   |  | 35  |                                      | 970    |
| BOW ISLAND H                                 |   | 0.85                     | 0.05                    |  |   |  | 35  |                                      | 1 926  |
| BOW ISLAND J                                 |   | 0.85                     | 0.05                    |  |   |  | 35  |                                      | 200    |
| BOW ISL & BI FGH&J TOTAL                     | 5 201   | 0.85                     | 0.05                    | 4 200  | 3 359   | 841  | 35  | 29 595                               |        |
| MANNVILLE A                                  | 1 220   | 0.90                     | 0.05                    | 1 040  | 861   | 179  | 37  | 6 700                                | 1 812  |
| MANNVILLE C                                  | 1 220   | 0.85                     | 0.05                    | 985  | 821   | 164  | 37  | 6 139                                | 1 417  |
| OTHER  | 1 970   |                          |                         | 1 378  | 483   | 895  |   | 32 704                               |        |
| TOTAL-PENDANT D'OREILLE                      | 10 064  |                          |                         | 7 926  | 5 813   | 2 113  |   | 76 334                               |        |
| PENHOLD 036-27W4<br>LOWER MANNVILLE B        | 525   | 0.85                     | 0.05                    | 424  | 272   | 152  | 42  | 6 372                                | 930    |
| OTHER  | 1 667   |                          |                         | 1 084  | 31  | 1 053  |   | 42 088                               |        |
| TOTAL-PENHOLD                                | 2 192   |                          |                         | 1 508  | 303   | 1 205  |   | 48 460                               |        |
| PEORIA 076-02W6<br>TOTAL-PEORIA              | 391   |                          |                         | 277  |   | 277  |   | 10 910                               |        |
| PEPPERS (SA) 053-24W5<br>TOTAL-PEPPERS       | 616   |                          |                         | 432  |   | 432  |   | 17 143                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18            | 19          | 20                                     |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|---------------|-------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | COMPLESS | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | START<br>YEAR | END<br>YEAR | DESCRIPTION AND REMARKS                |
| m                           | frac     | frac        | kPa                 | sec  | frac     | frac                           | m                          |               |             |  |
| 2.85                        | 0.137    | 0.85        | 38 500              | 102  | 1.032    | 0.70                           | 3 047.4                    | 1971          | 1985        | TCPL                                   |
| 4.21                        | 0.140    | 0.50        | 20 680              | 93   | 0.871    | 0.68                           | 3 116.9                    | 1960          | 1978        | NUL CANAGUL                            |
| 3.77                        | 0.129    | 0.75        | 20 700              | 93   | 0.889    | 0.82                           | 3 110.1                    | 1971          | 1985        | TCPL                                   |
| 5.93                        | 0.192    | 0.65        | 7 030               | 38   | 0.879    | 0.59                           | 975.6                      | 1956          | 1985        | NUL CWNGNUL                            |
| 3.25                        | 0.201    | 0.60        | 6 580               | 27   | 0.869    | 0.61                           | 925.8                      | 1957          | 1984        | A&S                                    |
| 3.25                        | 0.214    | 0.65        | 6 510               | 27   | 0.870    | 0.62                           | 881.6                      | 1965          | 1984        | CWNGNUL PANALTA                        |
| 5.63                        | 0.133    | 0.60        | 9 350               | 42   | 0.815    | 0.69                           | 1 309.4                    | 1978          | 1985        | CONCURRENT PRODUCTION                  |
| 7.86                        | 0.139    | 0.50        | 13 400              | 55   | 0.800    | 0.69                           | 1 806.0                    | 1957          | 1985        | CONCURRENT PRODUCTION                  |
| 7.53                        | 0.151    | 0.60        | 13 650              | 58   | 0.818    | 0.69                           | 1 694.4                    | 1959          | 1983        | NUL A&S CWNGNUL TCPL PANALTA PROGAS    |
| 4.70                        | 0.137    | 0.60        | 13 650              | 58   | 0.818    | 0.69                           | 1 691.9                    | 1960          | 1981        | DOMEDOW A&S CWNGNUL PRODUCTION DECLINE |
| 7.35                        | 0.141    | 0.60        | 13 310              | 59   | 0.821    | 0.67                           | 1 854.6                    | 1959          | 1983        | CWNGNUL KANNGAZ                        |
| 8.07                        | 0.140    | 0.60        | 13 720              | 60   | 0.813    | 0.67                           | 1 846.5                    | 1958          | 1984        |  |
|                             |          |             |                     |      |          | 0.66                           |                            | 1960          | 1982        | A&S                                    |
|                             |          |             |                     |      |          |                                |                            | 1958          | 1984        |  |
|                             |          |             |                     |      |          |                                |                            | 1979          | 1984        |  |
| 1.26                        | 0.221    | 0.75        | 5 100               | 24   | 0.913    | 0.59                           | 653.9                      | 1954          | 1983        | CMG MATERIAL BALANCE                   |
| 2.60                        | 0.252    | 0.70        | 4 670               | 24   | 0.921    | 0.59                           | 620.4                      | 1946          | 1983        | MATERIAL BALANCE                       |
| 1.48                        | 0.255    | 0.65        | 4 950               | 24   | 0.916    | 0.59                           | 685.7                      | 1946          | 1983        | MATERIAL BALANCE                       |
| 1.34                        | 0.200    | 0.65        | 4 850               | 20   | 0.914    | 0.59                           | 635.6                      | 1946          | 1983        | MATERIAL BALANCE                       |
| 1.37                        | 0.209    | 0.70        | 4 850               | 20   | 0.914    | 0.59                           | 653.4                      | 1946          | 1983        | MATERIAL BALANCE                       |
| 2.10                        | 0.209    | 0.70        | 5 030               | 24   | 0.914    | 0.59                           | 669.5                      | 1957          | 1983        | MATERIAL BALANCE                       |
| 6.10                        | 0.214    | 0.65        | 7 930               | 30   | 0.872    | 0.57                           | 844.3                      | 1961          | 1981        | CMG                                    |
| 7.53                        | 0.223    | 0.65        | 8 230               | 30   | 0.868    | 0.57                           | 818.1                      | 1965          | 1984        | CMG MATERIAL BALANCE                   |
| 10.67                       | 0.116    | 0.75        | 16 200              | 71   | 0.818    | 0.72                           | 1 899.9                    | 1971          | 1983        | A&S KANNGAZ MATERIAL BALANCE           |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE  | 1  | 2  | 3  | 4   | 5  | 6   | 7  | 8   | 9   |
|---|--|--|--|---|--|---|--|---|---|
|   | RAW GAS  |  |  | MARKETABLE GAS  |  |   |  |   | AREA  |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup>  | POOL<br>RECOVERY<br>frac   | SURFACE<br>LOSS<br>frac  | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup>                            | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup>                  | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup>              | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup>                                | REMAINING<br>ENERGY<br>CONTENT<br>TJ  |   |
| PERRYVALE 064-23W4<br>TOTAL-PERRYVALE   | 152  |  |  | 104   |  | 104   |  | 4 087   |   |
| PERT (SA) 125-06W6<br>TOTAL-PERT  | 4  |  |  | 3   |  | 3   |  | 118   |   |
| PETER 072-01W5<br>TOTAL-PETER   | 14   |  |  | 7   |  | 7   |  | 280   |   |
| PETITOT (SA) 122-10W6<br>TOTAL-PETITOT  | 48   |  |  | 28  |  | 28  |  | 1 097   |   |
| PHILOMENA 071-09W4<br>TOTAL-PHILOMENA   | 808  |  |  | 399   | 42   | 357   |  | 13 615  |   |
| PHILP (SA) 002-12W4<br>TOTAL-PHILP  | 47   |  |  | 29  |  | 29  |  | 1 085   |   |
| PHOENIX 039-10W5<br>TOTAL-PHOENIX   | 704  |  |  | 474   | 49   | 425   |  | 16 024  |   |
| PICA (SA) 084-05W6<br>TOTAL-PICA  | 26   |  |  | 17  |  | 17  |  | 649   |   |
| PINCHER CREEK 004-29W4<br>RUNDLE A<br>TOTAL-PINCHER CREEK   | 44 881<br>44 881   | 0.30   | 0.31   | 9 300<br>9 300  | 9 054<br>9 054   | 246<br>246  | 382  | 9 392<br>9 392  | 5 666   |
| PINE CREEK 057-19W5<br>CARDIUM H & I SOLN<br>CARDIUM H & I TOTAL<br>LOWER MANNVILLE 11-057-20<br>NORDEGG A<br>ELKTON A<br>WABAMUN<br>WABAMUN B<br>WABAMUN C<br>D-3<br>D-3 B<br>OTHER<br>TOTAL-PINE CREEK  | 1 019<br>1 019<br>393<br>4 984<br>687<br>3 069<br>6 773<br>4 231<br>23 497<br>1 423<br>3 022<br>49 098 | 0.62<br>0.60<br>0.85<br>0.70<br>0.85<br>0.80<br>0.80<br>0.80<br>0.35<br>0.85<br>0.35<br>0.35         | 0.20<br>0.20<br>0.05<br>0.10<br>0.10<br>0.45<br>0.45<br>0.35<br>0.35<br>0.35<br>0.35<br>0.35         | 506<br>506<br>318<br>3 140<br>526<br>1 350<br>2 980<br>2 200<br>5 350<br>786<br>1 857<br>19 013 | 155<br>351<br>318<br>262<br>198<br>1 127<br>2 473<br>1 387<br>4 878<br>6<br>10 486 | 39<br>39<br>37<br>2 878<br>328<br>223<br>507<br>813<br>472<br>786<br>1 851<br>8 527 | 37<br>39<br>37<br>39<br>39<br>39<br>39<br>37<br>37<br>37<br>37<br>37       | 13 794<br>11 903<br>113 105<br>12 890<br>8 764<br>19 925<br>31 951<br>17 667<br>29 420<br>72 505<br>331 924 | 200<br>275<br>400<br>1 619<br>3 905<br>663<br>3 984<br>128                        |
| PINE NORTH WEST 058-20W5<br>D-3 A<br>OTHER<br>TOTAL-PINE NORTH WEST   | 8 991<br>252<br>9 243  | 0.35   | 0.25   | 2 360<br>180<br>2 540   | 1 582<br>28<br>1 610   | 778<br>152<br>930   | 37   | 28 537<br>5 939<br>34 476   | 1 305   |
| PINEDALE 054-16W4<br>TOTAL-PINEDALE   | 445  |  |  | 295   | 8  | 287   |  | 10 794  |   |
| PINEHURST 066-10W4<br>TOTAL-PINEHURST   | 73   |  |  | 45  |  | 45  |  | 1 685   |   |
| PINGEL 081-07W6<br>TOTAL-PINGEL   | 203  |  |  | 146   |  | 146   |  | 5 848   |   |
| PLACID 060-23W5<br>TOTAL-PLACID   | 127  |  |  | 89  |  | 89  |  | 3 497   |   |
| PLAIN 053-12W4<br>UPPER MANNVILLE F<br>UPPER MANNVILLE H<br>UPPER MANNVILLE K<br>UPPER MANNVILLE L<br>UPPER MANNVILLE M<br>SPARKY B<br>U MANN HKLM & SPKY B TOTAL<br>COLONY A<br>UPPER MANNVILLE A<br>UPPER MANNVILLE B<br>SPARKY A<br>UMN AB, SPKY A & CLY A TOTAL<br>COLONY F | 652<br>95<br>193<br>17<br>9<br>348<br>662<br>278<br>85<br>63<br>134<br>560<br>531                      | 0.75<br>0.70<br>0.70<br>0.70<br>0.70<br>0.80<br>0.75<br>0.75<br>0.70<br>0.70<br>0.70<br>0.70<br>0.85 | 0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.03<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05 | 465<br>63<br>128<br>11<br>6<br>270<br>478<br>198<br>56<br>42<br>89<br>385<br>428                | 389<br>235<br>83<br>207  | 76<br>243<br>302<br>221   | 37<br>37<br>37<br>37<br>37<br>37<br>37<br>37<br>37<br>37<br>37<br>37<br>37 | 2 845<br>9 095<br>11 304<br>8 272   | 2 140<br>996<br>794<br>200<br>128<br>1 745<br>1 424<br>439<br>128<br>660<br>2 885 |



| 10                          | 11       | 12          | 13                  | 14   | 15      | 16                  | 17                         | 18           | 19            | 20                                  |
|-----------------------------|----------|-------------|---------------------|------|---------|---------------------|----------------------------|--------------|---------------|-------------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | DENSITY | RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | WELL<br>DATE | DATE<br>ACQ'D | DESCRIPTION AND REMARKS             |
| m                           | frac     | frac        | kPa                 | OC   | frac    | frac                | m                          |              |               |                                     |
| 107.59                      | 0.040    | 0.80        | 34 080              | 89   | 0.965   | 0.74                | 3 810.0                    | 1948         | 1983          | TCPL PRODUCTION DECLINE             |
|                             |          |             |                     |      |         | 0.71                |                            | 1980         | 1982          |                                     |
| 7.92                        | 0.160    | 0.70        | 26 510              | 85   | 0.950   | 0.57                | 2 861.8                    | 1977         | 1983          | CNG TCPL                            |
| 4.45                        | 0.097    | 0.75        | 21 920              | 96   | 0.908   | 0.65                | 2 691.0                    | 1965         | 1985          | A&S PROGAS                          |
| 12.50                       | 0.082    | 0.80        | 23 230              | 80   | 0.893   | 0.67                | 2 600.2                    | 1968         | 1982          | A&S PANALTA PROGAS TCPL             |
| 3.52                        | 0.069    | 0.85        | 29 790              | 99   | 0.828   | 0.84                | 3 026.1                    | 1957         | 1983          | PANALTA                             |
| 6.61                        | 0.069    | 0.85        | 29 500              | 99   | 0.863   | 0.82                | 3 130.3                    | 1956         | 1983          | A&S PANALTA PROGAS MATERIAL BALANCE |
| 5.05                        | 0.062    | 0.85        | 31 220              | 115  | 0.916   | 0.78                | 3 459.2                    | 1958         | 1985          | PANALTA A&S PROGAS MATERIAL BALANCE |
| 39.32                       | 0.070    | 0.85        | 31 550              | 113  | 0.917   | 0.77                | 3 360.1                    | 1957         | 1975          | A&S MATERIAL BALANCE                |
| 54.89                       | 0.096    | 0.85        | 29 410              | 106  | 0.889   | 0.77                | 3 384.5                    | 1973         | 1984          | A&S PANALTA                         |
|                             |          |             |                     |      |         |                     |                            |              |               | ASS                                 |
| 47.50                       | 0.064    | 0.90        | 32 060              | 116  | 0.963   | 0.70                | 3 250.2                    | 1963         | 1982          | A&S PRODUCTION DECLINE              |
|                             |          |             |                     |      |         |                     |                            |              |               |                                     |
| 1.87                        | 0.280    | 0.60        | 4 620               | 24   | 0.910   | 0.57                | 725.7                      | 1968         | 1981          | TCPL MATERIAL BALANCE               |
| 1.26                        | 0.250    | 0.55        | 5 170               | 24   | 0.902   | 0.57                | 647.2                      | 1959         | 1978          |                                     |
| 1.26                        | 0.300    | 0.55        | 5 210               | 24   | 0.900   | 0.57                | 657.8                      | 1959         | 1982          | PRODUCTION DECLINE                  |
| 1.20                        | 0.210    | 0.60        | 5 200               | 23   | 0.901   | 0.57                | 656.6                      | 1975         | 1983          |                                     |
| 0.90                        | 0.270    | 0.50        | 5 170               | 24   | 0.900   | 0.58                | 672.7                      | 1975         | 1983          |                                     |
| 2.53                        | 0.275    | 0.55        | 4 900               | 24   | 0.900   | 0.57                | 673.9                      | 1958         | 1974          |                                     |
|                             |          |             |                     |      |         |                     |                            | 1958         | 1983          | TCPL                                |
| 2.00                        | 0.275    | 0.70        | 4 790               | 24   | 0.903   | 0.58                | 610.4                      | 1959         | 1976          |                                     |
| 2.35                        | 0.275    | 0.55        | 5 100               | 24   | 0.902   | 0.60                | 641.4                      | 1952         | 1976          |                                     |
| 5.55                        | 0.275    | 0.60        | 5 140               | 24   | 0.920   | 0.59                | 639.2                      | 1959         | 1982          |                                     |
| 2.60                        | 0.275    | 0.55        | 4 900               | 24   | 0.905   | 0.59                | 665.1                      | 1952         | 1976          |                                     |
|                             |          |             |                     |      |         |                     |                            | 1952         | 1982          | CWNGNUL TCPL                        |
| 1.83                        | 0.300    | 0.65        | 4 830               | 21   | 0.906   | 0.58                | 604.3                      | 1970         | 1978          | TCPL                                |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>PLAIN 053-12W4 (CONTINUED)</b>            |   |                          |                         |  |   |  |   |                                      |        |
| COLONY B                                     | 360   | 0.70                     | 0.05                    | 239  |   |  | 37  |                                      | 1 708  |
| COLONY C                                     | 112   | 0.80                     | 0.05                    | 85   |   |  | 37  |                                      | 200    |
| COLONY B & C TOTAL                           | 472   | 0.70                     | 0.05                    | 324  | 57  | 267  | 37  | 9 994                                |        |
| LOWER MANNVILLE D                            |   | 0.65                     | 0.05                    |  |   |  | 37  |                                      | 256    |
| NISKU C                                      |   | 0.75                     | 0.05                    |  |   |  | 37  |                                      | 317    |
| L MANN D & NISKU C TOTAL                     | 506   | 0.70                     | 0.05                    | 336  | 221   | 115  | 37  | 4 262                                |        |
| CAMROSE A                                    | 1 011   | 0.75                     | 0.05                    | 721  | 463   | 258  | 37a   | 9 561                                | 4 411  |
| OTHER  | 7 610   |                          |                         | 5 071  | 1 454   | 3 617  |   | 135 188                              |        |
| TOTAL-PLAIN                                  | 12 004  |                          |                         | 8 208  | 3 109   | 5 099  |   | 190 521                              |        |
| <b>PLANTE 055-22W5</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-PLANTE                                 | 667   |                          |                         | 486  |   | 486  |   | 18 966                               |        |
| <b>PLEASANT 068-20W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-PLEASANT                               | 782   |                          |                         | 521  | 146   | 375  |   | 13 985                               |        |
| <b>PLUTO (SA) 044-15W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-PLUTO                                  | 39  |                          |                         | 26   |   | 26   |   | 1 102                                |        |
| <b>POINT ALISON (SA) 052-04W5</b>            |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-POINT ALISON                           | 341   |                          |                         | 231  |   | 231  |   | 9 759                                |        |
| <b>POISON (SA) 056-14W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-POISON                                 | 143   |                          |                         | 94   |   | 94   |   | 3 518                                |        |
| <b>POLLOCKVILLE 025-10W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-POLLOCKVILLE                           | 501   |                          |                         | 366  |   | 366  |   | 13 700                               |        |
| <b>POMME (SA) 115-24W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-POMME                                  | 17  |                          |                         | 10   |   | 10   |   | 393                                  |        |
| <b>PONOKA 043-26W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-PONOKA                                 | 67  |                          |                         | 45   |   | 45   |   | 1 937                                |        |
| <b>PONY (SA) 080-08W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-PONY                                   | 18  |                          |                         | 10   |   | 10   |   | 374                                  |        |
| <b>PORTAGE 078-17W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| MCMURRAY-GROSMONT A                          | 1 535   | 0.60                     | 0.05                    | 875  |   |  | 37  |                                      | 17 404 |
| MCMURRAY-GROSMONT A                          | 1 378   | 0.50                     | 0.05                    | 655  |   |  | 37  |                                      | 17 386 |
| MCMURRAY-GROSMONT A TOTAL                    | 2 913   | 0.55                     | 0.05                    | 1 530  | 1 213   | 317  | 37  | 11 808                               |        |
| OTHER  | 188   |                          |                         | 105  |   | 105  |   | 3 929                                |        |
| TOTAL-PORTAGE                                | 3 101   |                          |                         | 1 635  | 1 213   | 422  |   | 15 737                               |        |
| <b>POTOGO (SA) 095-21W5</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-POTOGO                                 | 9   |                          |                         | 6  |   | 6  |   | 236                                  |        |
| <b>POUCE COUPE 080-12W6</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| PEACE RIVER A                                | 4 816   | 0.75                     | 0.02                    | 3 540  | 3 261   | 279  | 37  | 10 443                               | 11 891 |
| KISKATINAW D                                 | 3 750   | 0.80                     | 0.10                    | 2 700  | 146   | 2 554  | 38  | 97 512                               | 3 733  |
| OTHER  | 2 401   |                          |                         | 1 697  | 254   | 1 443  |   | 56 155                               |        |
| TOTAL-POUCE COUPE                            | 10 967  |                          |                         | 7 937  | 3 661   | 4 276  |   | 164 110                              |        |
| <b>POUCE COUPE SOUTH 078-12W6</b>            |   |                          |                         |  |   |  |   |                                      |        |
| PEACE RIVER A                                | 969   | 0.70                     | 0.03                    | 659  | 637   | 22   | 39  | 856                                  | 6 809  |
| PEACE RIVER B                                | 1 284   | 0.70                     | 0.02                    | 881  | 875   | 6  | 39  | 234                                  | 2 899  |
| GETHING A                                    | 563   | 0.90                     | 0.03                    | 493  | 459   | 34   | 37  | 1 273                                | 200    |
| CADDMIN 077-11                               | 462   | 0.80                     | 0.10                    | 333  |   | 333  | 37  | 12 464                               | 901    |
| BOUNDARY B SOLN                              | 899   | 0.65                     | 0.25                    | 438  | 21  | 417  | 37  | 15 608                               |        |
| DOIG 11-078-11                               | 457   | 0.80                     | 0.05                    | 348  |   | 348  | 40  | 13 809                               | 200    |
| OTHER  | 3 518   |                          |                         | 2 368  | 245   | 2 123  |   | 81 343                               |        |
| TOTAL-POUCE COUPE SOUTH                      | 8 152   |                          |                         | 5 520  | 2 237   | 3 283  |   | 125 587                              |        |
| <b>PRAIRIE RIVER (SA) 070-14W5</b>           |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-PRAIRIE RIVER                          | 150   |                          |                         | 101  |   | 101  |   | 3 969                                |        |
| <b>PRESLEY 059-19W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-PRESLEY                                | 782   |                          |                         | 582  | 110   | 472  |   | 18 550                               |        |
| <b>PRESPTOU (SA) 088-13W6</b>                |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-PRESPTOU                               | 167   |                          |                         | 107  |   | 107  |   | 4 205                                |        |



[illegible]

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9       |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|---------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA    |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |         |
| <b>PREVO 039-01W5</b>                        |   |                          |                         |  |   |  |   |                                      |         |
| PEKISKO B                                    | 1 250   | 0.60                     | 0.10                    | 676  | 537   | 139  | 42a   | 5 775                                | 703     |
| OTHER  | 836   |                          |                         | 519  | 146   | 373  |   | 14 517                               |         |
| TOTAL-PREVO                                  | 2 086   |                          |                         | 1 195  | 683   | 512  |   | 20 292                               |         |
| <b>PRINCESS 020-11W4</b>                     |   |                          |                         |  |   |  |   |                                      |         |
| MILK RIVER A                                 | 11 684  | 0.70                     | 0.05                    | 7 770  |   |  | 36a   |                                      | 87 450  |
| MEDICINE HAT A                               | 6 406   | 0.70                     | 0.03                    | 4 350  |   |  | 36a   |                                      | 83 623  |
| MEDICINE HAT C                               | 722   | 0.50                     | 0.03                    | 350  |   |  | 36a   |                                      | 26 278  |
| MEDICINE HAT D                               | 516   | 0.50                     | 0.03                    | 250  |   |  | 36a   |                                      | 18 009  |
| SE ALTA GAS SYS(MU) TOTAL                    | 19 328  | 0.70                     | 0.05                    | 12 720   | 3 192   | 9 528  | 36a   | 345 962                              |         |
| SECOND WHITE SPECKS A                        | 7 761   | 0.75                     | 0.05                    | 5 530  | 2 406   | 3 124  | 36  | 113 432                              | 66 182  |
| BASAL MANNVILLE A                            | 507   | 0.90                     | 0.05                    | 434  | 141   | 293  | 38a   | 11 187                               | 425     |
| BASAL MANNVILLE M                            | 769   | 0.60                     | 0.05                    | 438  | 428   | 10   | 38  | 382                                  | 739     |
| JEFFERSON B                                  | 854   | 0.90                     | 0.05                    | 730  | 566   | 164  | 39a   | 6 324                                | 2 817   |
| OTHER  | 3 258   |                          |                         | 2 361  | 1 116   | 1 245  |   | 47 841                               |         |
| TOTAL-PRINCESS                               | 32 477  |                          |                         | 22 213   | 7 849   | 14 364   |   | 525 128                              |         |
| <b>PRITCHARD 061-01W4</b>                    |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-PRITCHARD                              | 42  |                          |                         | 27   | 4   | 23   |   | 860                                  |         |
| <b>PROGRESS 077-09W6</b>                     |   |                          |                         |  |   |  |   |                                      |         |
| HALFWAY A                                    | 1 307   | 0.85                     | 0.10                    | 1 000  | 11  | 989  | 39  | 38 136                               | 1 467   |
| HALFWAY G                                    | 724   | 0.80                     | 0.05                    | 550  |   | 550  | 39  | 21 208                               | 953     |
| UPPER BELLOY 078-09                          | 843   | 0.75                     | 0.05                    | 600  |   | 600  | 38  | 22 908                               | 983     |
| MIDDLE BELLOY 078-09                         | 772   | 0.75                     | 0.05                    | 550  |   | 550  | 38  | 20 999                               | 1 194   |
| OTHER  | 2 145   |                          |                         | 1 486  |   | 1 486  |   | 57 050                               |         |
| TOTAL-PROGRESS                               | 5 791   |                          |                         | 4 186  | 11  | 4 175  |   | 160 301                              |         |
| <b>PROVINCE 008-11W4</b>                     |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-PROVINCE                               | 57  |                          |                         | 39   |   | 39   |   | 1 387                                |         |
| <b>PROVDST 037-07W4</b>                      |   |                          |                         |  |   |  |   |                                      |         |
| BELLY RIVER B                                | 455   | 0.70                     | 0.05                    | 303  | 65  | 238  | 38  | 9 087                                | 2 644   |
| VIKING CAK & MANN E ASSOC                    | 50 000  | 0.75                     | 0.04                    | 36 000b  |   |  | 39a   |                                      | 469 193 |
| VIKING CAK & MANN E SOLN                     | 2 325   | 0.12                     | 0.20                    | 223b   |   |  | 39a   |                                      |         |
| VIKING CAK & MANN E TOTAL                    | 52 325  | 0.70                     | 0.05                    | 36 223b  | 23 924b   | 12 299   | 39  | 478 800                              |         |
| BASAL COLORADO D                             | 456   | 0.80                     | 0.05                    | 347  | 32  | 315  | 38  | 12 027                               | 3 606   |
| BASAL COLORADO A                             | 903   | 0.70                     | 0.05                    | 600  |   |  | 38  |                                      | 4 636   |
| MANNVILLE M                                  | 21  | 0.65                     | 0.05                    | 13   |   |  | 38  |                                      | 200     |
| BSL COLO A & MANN M TOTAL                    | 924   | 0.70                     | 0.05                    | 613  | 46  | 567  | 38  | 21 648                               |         |
| MANNVILLE Q                                  | 645   | 0.80                     | 0.05                    | 490  | 147   | 343  | 37  | 12 838                               | 440     |
| MANNVILLE Z                                  | 915   | 0.85                     | 0.10                    | 700  | 609   | 91   | 41  | 3 713                                | 3 010   |
| UPPER MANNVILLE AA                           | 830   | 0.85                     | 0.05                    | 670  | 374   | 296  | 37  | 11 079                               | 1 749   |
| UPPER MANNVILLE E2E                          | 6 223   | 0.75                     | 0.10                    | 4 200  | 675   | 3 525  | 41  | 145 160                              | 12 035  |
| OTHER  | 17 186  |                          |                         | 11 312   | 1 551   | 9 761  |   | 369 984                              |         |
| TOTAL-PROVDST                                | 79 959  |                          |                         | 54 858   | 27 423  | 27 435   |   | 1 064 336                            |         |
| <b>PUSKASKAU 074-01W6</b>                    |   |                          |                         |  |   |  |   |                                      |         |
| LEDUC 20-073-01                              | 556   | 0.65                     | 0.15                    | 307  |   | 307  | 60  | 18 561                               | 200     |
| OTHER  | 662   |                          |                         | 447  |   | 447  |   | 17 334                               |         |
| TOTAL-PUSKASKAU                              | 1 218   |                          |                         | 754  |   | 754  |   | 35 895                               |         |
| <b>PYRAMID 105-10W6</b>                      |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-PYRAMID                                | 50  |                          |                         | 33   |   | 33   |   | 1 321                                |         |
| <b>QUEENSTOWN 019-21W4</b>                   |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-QUEENSTOWN                             | 127   |                          |                         | 87   |   | 87   |   | 3 322                                |         |
| <b>QUIGLEY (SA) 083-14W4</b>                 |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-QUIGLEY                                | 2   |                          |                         | 1  |   | 1  |   | 37                                   |         |
| <b>QUIRK CREEK 021-04W5</b>                  |   |                          |                         |  |   |  |   |                                      |         |
| RUNDLE A                                     | 13 000  | 0.80                     | 0.25                    | 7 800  | 5 276   | 2 524  | 40a   | 102 045                              | 2 250   |
| RUNDLE E                                     | 1 699   | 0.50                     | 0.25                    | 638  | 204   | 434  | 40  | 17 547                               | 300     |
| RUNDLE 15-021-05                             | 803   | 0.80                     | 0.25                    | 482  |   | 482  | 40  | 19 487                               | 200     |
| OTHER  | 895   |                          |                         | 368  | 171   | 197  |   | 7 761                                |         |
| TOTAL-QUIRK CREEK                            | 16 397  |                          |                         | 9 288  | 5 651   | 3 637  |   | 146 840                              |         |
| <b>RACOSTA 031-11W4</b>                      |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-RACOSTA                                | 533   |                          |                         | 362  | 35  | 327  |   | 12 285                               |         |



| 10                          | 11       | 12          | 13                  | 14   | 15                       | 16                       | 17                         | 18                        | 19                        | 20  |
|-----------------------------|----------|-------------|---------------------|------|--------------------------|--------------------------|----------------------------|---------------------------|---------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | RELATIVE<br>PERMEABILITY | RELATIVE<br>PERMEABILITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>TEST<br>PERFORMED | DATE<br>TEST<br>PERFORMED | EXPLANATION AND REMARKS   |
| m                           | frac     | frac        | kPa                 | sec  | frac                     | frac                     | m                          |                           |                           |   |
| 10.64                       | 0.075    | 0.60        | 16 134              | 73   | 0.835                    | 0.64                     | 2 013.4                    | 1958                      | 1982                      | TCPL PRODUCTION DECLINE   |
| 5.28                        | 0.154    | 0.55        | 3 140               | 16   | 0.938                    | 0.58                     | 355.7                      | 1910                      | 1983                      | PART OF MILK REV POOL NO. 1 PRODUCTION DECLINE                              |
| 1.77                        | 0.170    | 0.55        | 4 310               | 17   | 0.913                    | 0.57                     | 487.7                      | 1914                      | 1982                      | PART OF MED HAT POOL NO. 1  |
| 0.70                        | 0.139    | 0.60        | 4 450               | 19   | 0.921                    | 0.57                     | 487.7                      | 1973                      | 1983                      | PART OF MED HAT POOL NO. 3  |
| 0.73                        | 0.139    | 0.60        | 4 450               | 19   | 0.921                    | 0.57                     | 487.7                      | 1973                      | 1982                      | PART OF MED HAT POOL NO. 4  |
| 1.51                        | 0.216    | 0.60        | 5 690               | 27   | 0.899                    | 0.57                     | 630.0                      | 1939                      | 1982                      | KANNGAZ PANALTA TCPL  |
| 6.98                        | 0.200    | 0.70        | 10 690              | 31   | 0.816                    | 0.61                     | 970.2                      | 1940                      | 1986                      | PANALTA TCPL PART OF 2WS POOL NO. 1   |
| 2.79                        | 0.250    | 0.50        | 10 800              | 35   | 0.838                    | 0.63                     | 995.2                      | 1958                      | 1977                      | TCPL  |
| 4.12                        | 0.080    | 0.75        | 10 980              | 38   | 0.820                    | 0.82                     | 1 200.0                    | 1940                      | 1973                      | TCPL MATERIAL BALANCE<br>TCPL   |
| 4.81                        | 0.146    | 0.75        | 17 650              | 77   | 0.848                    | 0.65                     | 1 881.5                    | 1978                      | 1985                      | PANALTA   |
| 5.46                        | 0.121    | 0.70        | 17 440              | 74   | 0.870                    | 0.62                     | 1 931.7                    | 1976                      | 1982                      | PANALTA   |
| 5.70                        | 0.133    | 0.70        | 18 940              | 83   | 0.936                    | 0.65                     | 2 049.7                    | 1980                      | 1984                      |   |
| 3.94                        | 0.140    | 0.70        | 19 230              | 83   | 0.917                    | 0.59                     | 2 066.3                    | 1980                      | 1985                      |   |
| 3.60                        | 0.280    | 0.70        | 2 340               | 14   | 0.950                    | 0.57                     | 306.2                      | 1971                      | 1980                      |   |
| 1.60                        | 0.220    | 0.38        | 5 890               | 29   | 0.890                    | 0.60                     | 765.0                      | 1946                      | 1985                      | MATERIAL BALANCE CONCURRENT PRODUCTION                                      |
|                             |          |             |                     |      |                          | 0.60                     |                            | 1946                      | 1985                      | MATERIAL BALANCE CONCURRENT PRODUCTION                                      |
|                             |          |             |                     |      |                          |                          |                            | 1946                      | 1985                      | CWNGNUL PANALTA TCPL KANNGAZ PROGAS<br>CONCURRENT PRODUCTION<br>PROGAS TCPL |
| 1.10                        | 0.250    | 0.70        | 6 310               | 33   | 0.886                    | 0.60                     | 983.6                      | 1951                      | 1977                      |   |
| 2.53                        | 0.200    | 0.60        | 6 130               | 34   | 0.885                    | 0.62                     | 928.8                      | 1963                      | 1984                      |   |
| 1.24                        | 0.200    | 0.70        | 5 900               | 35   | 0.895                    | 0.61                     | 930.9                      | 1976                      | 1984                      |   |
| 3.50                        | 0.300    | 0.80        | 6 140               | 30   | 0.894                    | 0.59                     | 812.3                      | 1975                      | 1984                      | TCPL  |
| 2.38                        | 0.330    | 0.60        | 7 790               | 33   | 0.852                    | 0.63                     | 1 063.9                    | 1972                      | 1985                      | TCPL MATERIAL BALANCE   |
| 1.67                        | 0.240    | 0.65        | 9 280               | 37   | 0.834                    | 0.65                     | 1 074.0                    | 1949                      | 1980                      | LOC U TCPL PANALTA MATERIAL BALANCE   |
| 4.68                        | 0.202    | 0.65        | 7 820               | 35   | 0.858                    | 0.63                     | 1 124.6                    | 1974                      | 1981                      | CWNGNUL MATERIAL BALANCE  |
|                             |          |             |                     |      |                          |                          |                            | 1974                      | 1985                      | CWNGNUL KANNGAZ PANALTA TCPL  |
| 18.07                       | 0.070    | 0.80        | 28 800              | 81   | 0.842                    | 0.98                     | 2 983.5                    | 1980                      | 1983                      | BER   |
| 43.39                       | 0.080    | 0.80        | 15 720              | 49   | 0.745                    | 0.77                     | 1 921.5                    | 1967                      | 1984                      | TCPL MATERIAL BALANCE TOP/BASE TVD  |
| 59.25                       | 0.063    | 0.80        | 18 550              | 73   | 0.804                    | 0.75                     | 2 799.9                    | 1973                      | 1985                      | TCPL TOP/BASE TVD   |
| 33.50                       | 0.080    | 0.80        | 18 100              | 70   | 0.801                    | 0.76                     | 2 596.6                    | 1975                      | 1982                      | TCPL  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE      | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>RADWAY 059-20W4</b><br>TOTAL-RADWAY            | 513   |                          |                         | 344  | 1   | 343  |   | 12 835                               |        |
| <b>RAINBOW 110-06W6</b>                           |   |                          |                         |  |   |  |   |                                      |        |
| BLUESKY A   | 6 089   | 0.70                     | 0.05                    | 4 049  |   |  | 37  |                                      | 51 963 |
| BLUESKY A   | 1 097   | 0.50                     | 0.05                    | 521  |   |  | 37  |                                      | 13 227 |
| BLUESKY A   | 47  | 0.50                     | 0.05                    | 22   |   |  | 37  |                                      | 1 259  |
| BLUESKY A   | 82  | 0.50                     | 0.05                    | 39   |   |  | 37  |                                      | 1 533  |
| BLUESKY A   | 5   | 0.70                     | 0.05                    | 4  |   |  | 37  |                                      | 150    |
| BLUESKY A   | 13  | 0.70                     | 0.05                    | 9  |   |  | 37  |                                      | 150    |
| BLUESKY A   | 3   | 0.70                     | 0.05                    | 2  |   |  | 37  |                                      | 150    |
| BLUESKY A   | 18  | 0.70                     | 0.05                    | 12   |   |  | 37  |                                      | 150    |
| BLUESKY A   | 22  | 0.70                     | 0.05                    | 14   |   |  | 37  |                                      | 150    |
| BLUESKY A   | 7   | 0.70                     | 0.05                    | 5  |   |  | 37  |                                      | 150    |
| BLUESKY A TOTAL                                   | 7 383   | 0.65                     | 0.05                    | 4 677  | 1 092   | 3 585  | 37  | 134 187                              |        |
| SLAVE POINT A                                     | 398   | 0.85                     | 0.10                    | 304  |   | 304  | 41  | 12 519                               | 1 366  |
| KEG RIVER A SOLN                                  | 3 409   | 0.88                     | 0.30                    | 2 100  | 1885  | 215  | 45a   | 9 658                                |        |
| KEG RIVER B SOLN                                  | 3 510   | 0.72                     | 0.35                    | 1 643  | 940   | 703  | 47a   | 33 153                               |        |
| KEG RIVER F SOLN                                  | 4 293   | 0.60                     | 0.45                    | 1 420  | 1 447   | 27   | 46a   | 1 243                                |        |
| KEG RIVER O SOLN                                  | 1 625   | 0.80                     | 0.25                    | 975  | 874   | 101  | 47a   | 4 763                                |        |
| KEG RIVER AA SOLN                                 | 1 899   | 0.79                     | 0.40                    | 900  | 898   | 2  | 47a   | 94                                   |        |
| KEG RIVER II SOLN                                 | 586   | 0.75                     | 0.30                    | 308  | 166   | 142  | 47a   | 6 697                                |        |
| KEG RIVER A ASSDC                                 | 1 044   | 0.90                     | 0.10                    | 845  | -2 178  | 3 023  | 45a   | 135 793                              | 95     |
| KEG RIVER F ASSOC                                 | 703   | 0.85                     | 0.15                    | 508  | -38   | 546  | 46a   | 25 138                               | 652    |
| KEG RIVER Q                                       | 573   | 0.85                     | 0.10                    | 438  |   | 438  | 47  | 20 656                               | 64     |
| KEG RIVER FFF                                     | 547   | 0.90                     | 0.10                    | 442  | 282   | 160  | 43a   | 6 888                                | 64     |
| OTHER   | 11 179  |                          |                         | 5 446  | -746  | 6 192  |   | 277 313                              |        |
| TOTAL-RAINBOW                                     | 37 149  |                          |                         | 20 006   | 4 622   | 15 384   |   | 665 616                              |        |
| <b>RAINBOW SOUTH 107-09W6</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| KEG RIVER B SOLN                                  | 1 056   | 0.80                     | 0.40                    | 507  | 496   | 11   | 44a   | 484                                  |        |
| OTHER   | 7 092   |                          |                         | 3 543  | 437   | 3 106  |   | 130 902                              |        |
| TOTAL-RAINBOW SOUTH                               | 8 148   |                          |                         | 4 050  | 933   | 3 117  |   | 131 386                              |        |
| <b>RAINIER 017-15W4</b><br>TOTAL-RAINIER          | 494   |                          |                         | 349  | 13  | 336  |   | 12 766                               |        |
| <b>RAMBLING 090-07W6</b><br>TOTAL-RAMBLING        | 40  |                          |                         | 26   |   | 26   |   | 1 022                                |        |
| <b>RANFURLY 050-12W4</b><br>TOTAL-RANFURLY        | 1 887   |                          |                         | 1 302  | 345   | 957  |   | 35 789                               |        |
| <b>RASPBERRY (SA) 066-17W5</b><br>TOTAL-RASPBERRY | 108   |                          |                         | 77   |   | 77   |   | 2 882                                |        |
| <b>RATZ (SA) 126-18W5</b><br>TOTAL-RATZ           | 70  |                          |                         | 50   |   | 50   |   | 2 030                                |        |
| <b>REAGAN 001-19W4</b><br>TOTAL-REAGAN            | 168   |                          |                         | 80   | 13  | 67   |   | 2 508                                |        |
| <b>RED CAP (SA) 046-20W5</b><br>TOTAL-RED CAP     | 604   |                          |                         | 414  |   | 414  |   | 15 746                               |        |
| <b>RED COULEE 001-17W4</b><br>TOTAL-RED COULEE    | 18  |                          |                         | 14   | 11  | 3  |   | 115                                  |        |
| <b>RED EARTH 087-08W5</b><br>TOTAL-RED EARTH      | 440   |                          |                         | 231  |   | 231  |   | 8 566                                |        |
| <b>RED FISH (SA) 092-08W5</b><br>TOTAL-RED FISH   | 27  |                          |                         | 15   |   | 15   |   | 556                                  |        |
| <b>RED ROCK 063-07W6</b><br>TOTAL-RED ROCK        | 1 231   |                          |                         | 883  | 150   | 733  |   | 27 435                               |        |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19           | 20  |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|--------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | COMPRESS | NEW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE<br>YEAR | DEFINITION AND REMARKS                                    |
| m                           | frac     | frac        | kPa                 | OC   | frac     | frac                           | m                          |              |              |   |
| 5.37                        | 0.210    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 335.3                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1                                  |
| 3.85                        | 0.210    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 335.3                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1                                  |
| 1.72                        | 0.210    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 335.3                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1                                  |
| 2.45                        | 0.210    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 335.3                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1                                  |
| 1.60                        | 0.210    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 332.7                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-30-108-2 WGM |
| 3.90                        | 0.210    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 361.5                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>7-3-108-3 WGM   |
| 1.50                        | 0.120    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 328.7                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-2-109-3 WGM  |
| 4.57                        | 0.200    | 0.50        | 2 520               | 19   | 0.945    | 0.59                           | 276.5                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-36-110-2 WGM |
| 6.90                        | 0.200    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 485.7                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>3-2-110-8 WGM   |
| 2.00                        | 0.210    | 0.40        | 2 520               | 19   | 0.945    | 0.59                           | 249.6                      | 1972         | 1985         | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-28-111-2 WGM |
| 4.39                        | 0.072    | 0.65        | 14 130              | 69   | 0.828    | 0.70                           | 1 687.9                    | 1972         | 1985         | PANALTA TCPL PART OF BLSKY POOL NO. 1                     |
|                             |          |             |                     |      |          | 0.82                           |                            | 1966         | 1985         |   |
|                             |          |             |                     |      |          |                                |                            | 1965         | 1984         |   |
|                             |          |             |                     |      |          | 0.72                           |                            | 1965         | 1984         |   |
|                             |          |             |                     |      |          |                                |                            | 1966         | 1984         |   |
|                             |          |             |                     |      |          |                                |                            | 1966         | 1983         |   |
|                             |          |             |                     |      |          |                                |                            | 1967         | 1984         |   |
|                             |          |             |                     |      |          |                                |                            | 1967         | 1983         |   |
| 59.10                       | 0.110    | 0.94        | 17 690              | 75   | 0.767    | 0.82                           | 1 833.7                    | 1965         | 1984         |   |
| 18.50                       | 0.052    | 0.65        | 17 100              | 72   | 0.817    | 0.72                           | 1 792.7                    | 1966         | 1984         |   |
| 85.04                       | 0.073    | 0.90        | 16 510              | 76   | 0.840    | 0.69                           | 1 758.9                    | 1967         | 1984         |   |
| 122.19                      | 0.046    | 0.80        | 17 690              | 60   | 0.801    | 0.70                           | 1 862.0                    | 1967         | 1968         |   |
|                             |          |             |                     |      |          | 0.91                           |                            | 1966         | 1984         |   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>RED WILLOW 040-17W4</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 470   | 0.75                     | 0.05                    | 335  |   |  | 38  |                                      | 5 129  |
| VIKING B                                     | 81  | 0.75                     | 0.05                    | 58   |   |  | 38  |                                      | 1 638  |
| VIKING A & B TOTAL                           | 551   | 0.75                     | 0.05                    | 393  | 184   | 209  | 38  | 7 980                                |        |
| VIKING C                                     | 218   | 0.75                     | 0.05                    | 156  |   |  | 38  |                                      | 3 290  |
| VIKING D                                     | 360   | 0.75                     | 0.05                    | 257  |   |  | 38  |                                      | 3 868  |
| VIKING C & D TOTAL                           | 578   | 0.75                     | 0.05                    | 413  | 57  | 346  | 38  | 13 210                               |        |
| OTHER  | 2 557   |                          |                         | 1 720  | 135   | 1 585  |   | 61 806                               |        |
| TOTAL-RED WILLOW                             | 3 686   |                          |                         | 2 526  | 386   | 2 140  |   | 82 996                               |        |
| <b>REDLAND 027-22W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| UPPER MANNVILLE A                            | 862   | 0.90                     | 0.04                    | 744  | 718   | 26   | 40  | 1 041                                | 600    |
| OTHER  | 613   |                          |                         | 416  | 203   | 213  |   | 8 356                                |        |
| TOTAL-REDLAND                                | 1 475   |                          |                         | 1 160  | 921   | 239  |   | 9 397                                |        |
| <b>REDWATER 057-21W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| UPPER VIKING A                               | 2 547   | 0.80                     | 0.05                    | 1 940 <sup>b</sup>   |   |  | 39  |                                      | 48 857 |
| MIDDLE VIKING A                              | 785   | 0.80                     | 0.05                    | 597 <sup>b</sup>   |   |  | 39  |                                      | 11 540 |
| LOWER VIKING A ASSOC                         | 285   | 0.80                     | 0.05                    | 217 <sup>b</sup>   |   |  | 39  |                                      | 2 265  |
| LOWER VIKING A SOLN                          | 48  | 0.60                     | 0.45                    | 16 <sup>b</sup>  |   |  | 39  |                                      |        |
| UV A & MV A & LV A TOTAL                     | 3 665   | 0.80                     | 0.05                    | 2 770 <sup>b</sup>   | 666 <sup>b</sup>  | 2 104  | 39  | 81 909                               |        |
| D-3 SOLN                                     | 7 452   | 0.62                     | 0.65                    | 1 617  | 1 469   | 148  | 46 <sup>a</sup>                             | 6 759                                |        |
| OTHER  | 3 794   |                          |                         | 2 457  | 378   | 2 079  |   | 81 168                               |        |
| TOTAL-REDWATER                               | 14 911  |                          |                         | 6 844  | 2 513   | 4 331  |   | 169 836                              |        |
| <b>REINE (SA) 081-22W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-REINE                                  | 37  |                          |                         | 25   |   | 25   |   | 1 020                                |        |
| <b>REITA 059-03W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-REITA                                  | 130   |                          |                         | 79   |   | 79   |   | 2 957                                |        |
| <b>RESDELN (SA) 083-06W4</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-RESDELN                                | 289   |                          |                         | 140  |   | 140  |   | 5 241                                |        |
| <b>RETLAW 012-18W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| MANNVILLE Y                                  | 1 030   | 0.85                     | 0.20                    | 700  | 223   | 477  | 37  | 17 854                               | 328    |
| MANNVILLE B & D ASSOC                        | 1 567   | 0.90                     | 0.05                    | 1 340  |   |  | 37  |                                      | 960    |
| MANNVILLE B & D TOTAL                        | 1 567   | 0.90                     | 0.05                    | 1 340  | 766   | 574  | 37  | 21 485                               |        |
| MANNVILLE K                                  | 325   | 0.90                     | 0.15                    | 249  |   |  | 37  |                                      | 587    |
| MANNVILLE L                                  | 92  | 0.75                     | 0.10                    | 62   |   |  | 37  |                                      | 200    |
| MANNVILLE K & L TOTAL                        | 417   | 0.85                     | 0.15                    | 311  | 44  | 267  | 37  | 9 994                                |        |
| GLAUCONITIC 24-012-18                        | 544   | 0.85                     | 0.10                    | 416  |   | 416  | 37  | 15 571                               | 200    |
| MANNVILLE XXX                                | 457   | 0.85                     | 0.10                    | 350  | 45  | 305  | 37  | 11 416                               | 200    |
| OTHER  | 8 654   |                          |                         | 5 745  | 1 193   | 4 552  |   | 169 730                              |        |
| TOTAL-RETLAW                                 | 12 669  |                          |                         | 8 862  | 2 271   | 6 591  |   | 246 050                              |        |
| <b>RIBSTONE 042-04W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| COLONY C                                     | 543   | 0.75                     | 0.05                    | 387  | 61  | 326  | 37  | 12 202                               | 1 330  |
| OTHER  | 944   |                          |                         | 617  | 78  | 539  |   | 20 173                               |        |
| TOTAL-RIBSTONE                               | 1 487   |                          |                         | 1 004  | 139   | 865  |   | 32 375                               |        |
| <b>RICH 035-21W4</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| LOWER MANNVILLE A                            | 1 777   | 0.75                     | 0.10                    | 1 200  | 435   | 765  | 41  | 31 503                               | 4 610  |
| LOWER MANNVILLE D                            | 530   | 0.80                     | 0.10                    | 382  | 134   | 248  | 41  | 10 213                               | 812    |
| OTHER  | 828   |                          |                         | 523  | 25  | 498  |   | 20 448                               |        |
| TOTAL-RICH                                   | 3 135   |                          |                         | 2 105  | 594   | 1 511  |   | 62 164                               |        |
| <b>RICHDALE 030-12W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 1 091   | 0.80                     | 0.05                    | 829  |   |  | 38  |                                      | 9 326  |
| VIKING C                                     | 588   | 0.80                     | 0.05                    | 447  |   |  | 38  |                                      | 4 823  |
| VIKING F                                     | 136   | 0.75                     | 0.05                    | 97   |   |  | 38  |                                      | 440    |
| VIKING A, C & F TOTAL                        | 1 815   | 0.80                     | 0.05                    | 1 373  | 540   | 833  | 38  | 31 496                               |        |
| OTHER  | 3 428   |                          |                         | 2 307  | 517   | 1 790  |   | 69 812                               |        |
| TOTAL-RICHDALE                               | 5 243   |                          |                         | 3 680  | 1 057   | 2 623  |   | 101 308                              |        |
| <b>RICHMOND 069-19W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-RICHMOND                               | 120   |                          |                         | 75   | 46  | 29   |   | 1 085                                |        |
| <b>RICINUS 035-08W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| CARDIUM L SOLN                               | 595   | 0.85                     | 0.20                    | 405  | 145   | 260  | 37  | 9 732                                |        |



| 10                          | 11                      | 12                   | 13                      | 14             | 15                      | 16                             | 17                           | 18                   | 19                       | 20  |
|-----------------------------|-------------------------|----------------------|-------------------------|----------------|-------------------------|--------------------------------|------------------------------|----------------------|--------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE     | TEMP           | FORMER<br>TEMPERATURE   | RAW OIL<br>RELATIVE<br>DENSITY | NO. IN<br>FORMATION<br>DEPTH | WELL<br>YEAR         | DATE<br>LAST<br>REVIEWED | DEFINITION AND REMARKS  |
| m                           | frac                    | frac                 | kPa                     | °C             | frac                    | frac                           | m                            |                      |                          |   |
| 1.41<br>0.69                | 0.180<br>0.200          | 0.55<br>0.55         | 6 310<br>6 210          | 32<br>30       | 0.896<br>0.890          | 0.59<br>0.60                   | 997.3<br>958.9               | 1955<br>1957         | 1982<br>1982             | ONG PRODUCED  |
| 1.06<br>1.25                | 0.182<br>0.196          | 0.55<br>0.60         | 5 970<br>6 100          | 31<br>33       | 0.896<br>0.896          | 0.60<br>0.60                   | 984.5<br>989.8               | 1971<br>1953         | 1984<br>1984             | DOMEDOW ONG PANALTA PRODUCED TCPL   |
| 3.34                        | 0.190                   | 0.70                 | 10 670                  | 34             | 0.849                   | 0.57                           | 1 487.0                      | 1961                 | 1973                     | CWNG CWNUL MATERIAL BALANCE   |
| 0.81<br>0.96<br>0.82        | 0.240<br>0.200<br>0.220 | 0.50<br>0.60<br>0.60 | 5 340<br>5 670<br>5 450 | 33<br>33<br>21 | 0.908<br>0.892<br>0.880 | 0.60<br>0.60<br>0.60           | 703.8<br>702.3<br>624.8      | 1947<br>1947<br>1947 | 1981<br>1981<br>1982     | PART OF VIK POOL NO. 1<br>PART OF VIK POOL NO. 1<br>PART OF VIK POOL NO. 1 CONCURRENT<br>PRODUCTION |
|                             |                         |                      |                         |                |                         | 0.60                           |                              | 1947                 | 1982                     | PART OF VIK POOL NO. 1 CONCURRENT<br>PRODUCTION   |
|                             |                         |                      |                         |                |                         | 0.78                           |                              | 1947                 | 1982                     | CWNGUL PANALTA TCPL PART OF VIK POOL NO. 1<br>CONCURRENT PRODUCTION                                 |
| 4.30<br>2.03                | 0.260<br>0.221          | 0.90<br>0.70         | 11 790<br>11 860        | 35<br>35       | 0.777<br>0.788          | 0.75<br>0.69                   | 1 073.8<br>1 076.1           | 1974<br>1959         | 1980<br>1982             | TCPL MATERIAL BALANCE<br>MATERIAL BALANCE   |
| 2.46<br>4.01                | 0.222<br>0.190          | 0.75<br>0.65         | 11 350<br>8 320         | 30<br>35       | 0.788<br>0.828          | 0.71<br>0.71                   | 1 083.0<br>1 097.4           | 1954<br>1954         | 1985<br>1976             | TCPL CONCURRENT PRODUCTION<br>TCPL  |
| 20.45<br>14.50              | 0.164<br>0.180          | 0.60<br>0.65         | 11 420<br>11 380        | 31<br>31       | 0.790<br>0.790          | 0.66<br>0.67                   | 1 080.8<br>1 078.5           | 1981<br>1981         | 1983<br>1983             | KANNGAZ<br>TCPL   |
| 4.21                        | 0.289                   | 0.60                 | 5 270                   | 23             | 0.905                   | 0.66                           | 645.8                        | 1971                 | 1982                     | TCPL  |
| 3.58<br>3.31                | 0.177<br>0.208          | 0.65<br>0.75         | 8 720<br>8 580          | 59<br>59       | 0.866<br>0.868          | 0.65<br>0.67                   | 1 430.5<br>1 394.2           | 1953<br>1973         | 1985<br>1985             | DOMEDOW ONG PANALTA TCPL MATERIAL BALANCE<br>MATERIAL BALANCE                                       |
| 1.36<br>1.59<br>3.05        | 0.198<br>0.190<br>0.230 | 0.55<br>0.50<br>0.55 | 7 420<br>7 490<br>7 380 | 35<br>35<br>29 | 0.867<br>0.873<br>0.869 | 0.61<br>0.60<br>0.60           | 931.0<br>940.6<br>955.0      | 1955<br>1955<br>1970 | 1984<br>1984<br>1983     | SLPRTD TCPL   |
|                             |                         |                      |                         |                | 0.68                    |                                |                              | 1970                 | 1983                     | ONG TCPL  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>RICINUS 035-08W5 (CONTINUED)</b>          |   |                          |                         |  |   |  |   |                                      |       |
| CARDIUM W SOLN                               | 562   | 0.85                     | 0.25                    | 358  | 39  | 319  | 37  | 11 940                               |       |
| CARDIUM A SOLN                               | 3 232   | 0.85                     | 0.15                    | 2 330 <sup>b</sup>   |   |  | 37  |                                      |       |
| CARDIUM A ASSOC                              | 8 225   | 0.92                     | 0.10                    | 6 810 <sup>b</sup>   | 531 <sup>b</sup>  | 8 609  | 37  | 322 235                              | 2 369 |
| CARDIUM B ASSOC                              | 537   | c                        | c                       | 334  |   | 334  | 40 <sup>a</sup>                             | 13 507                               | 359   |
| CARDIUM F SOLN                               | 124   | 0.75                     | 0.30                    | 65 <sup>b</sup>  |   |  | 37  |                                      |       |
| CARDIUM F ASSOC                              | 931   | 0.80                     | 0.10                    | 670 <sup>b</sup>   | 291 <sup>b</sup>  | 444  | 37  | 16 619                               | 602   |
| CARDIUM L ASSOC                              | 811   | 0.85                     | 0.10                    | 620  | -99   | 719  | 37  | 26 912                               | 586   |
| CARDIUM SD 06-036-08                         | 444   | 0.80                     | 0.10                    | 320  |   | 320  | 37  | 11 978                               | 128   |
| VIKING A                                     | 637   | 0.75                     | 0.10                    | 430  |   |  | 39  |                                      | 532   |
| VIKING A                                     | 1 349   | 0.75                     | 0.10                    | 910  |   |  | 39  |                                      | 1 433 |
| VIKING A TOTAL                               | 1 986   | 0.75                     | 0.10                    | 1 340  | 123   | 1 217  | 39  | 47 828                               |       |
| VIKING #1THRUST32-032-07                     | 453   | 0.80                     | 0.10                    | 326  |   | 326  | 39  | 12 812                               | 150   |
| FLT VIKING 01-033-07                         | 418   | 0.80                     | 0.10                    | 301  |   | 301  | 39  | 11 829                               | 150   |
| D-3 A  | 11 667  | 0.40                     | 0.40                    | 2 800  | 1 137   | 1 663  | 38  | 62 878                               | 1 569 |
| D-3 B  | 2 246   | 0.85                     | 0.45                    | 1 050  | 69  | 981  | 38  | 37 092                               | 440   |
| OTHER  | 5 782   |                          |                         | 3 486  | 538   | 2 948  |   | 112 809                              |       |
| TOTAL-RICINUS                                | 38 013  |                          |                         | 21 215   | 2 774   | 18 441   |   | 698 171                              |       |
| <b>RICINUS WEST 036-10W5</b>                 |   |                          |                         |  |   |  |   |                                      |       |
| D-3 A  | 48 375  | 0.90                     | 0.45                    | 23 900   | 18 281  | 5 619  | 38  | 212 454                              | 2 591 |
| OTHER  | 329   |                          |                         | 261  | 212   | 49   |   | 1 791                                |       |
| TOTAL-RICINUS WEST                           | 48 704  |                          |                         | 24 161   | 18 493  | 5 668  |   | 214 245                              |       |
| <b>RINGS 080-05W6</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-RINGS                                  | 95  |                          |                         | 67   |   | 67   |   | 2 617                                |       |
| <b>RIVERCOURSE 047-01W4</b>                  |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-RIVERCOURSE                            | 703   |                          |                         | 488  | 30  | 458  |   | 17 005                               |       |
| <b>RIVIERE 055-27W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-RIVIERE                                | 291   |                          |                         | 189  | 11  | 178  |   | 7 063                                |       |
| <b>ROBIN (SA) 013-20W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ROBIN                                  | 105   |                          |                         | 69   |   | 69   |   | 2 567                                |       |
| <b>ROCHE (SA) 067-07W5</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ROCHE                                  | 73  |                          |                         | 48   |   | 48   |   | 1 779                                |       |
| <b>ROCHESTER 062-23W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ROCHESTER                              | 611   |                          |                         | 401  | 22  | 309  |   | 11 810                               |       |
| <b>ROCKYFORD 026-23W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| UPPER MANNVILLE A                            | 394   | 0.85                     | 0.10                    | 302  |   |  | 40  |                                      | 596   |
| LOWER MANNVILLE D                            | 106   | 0.75                     | 0.10                    | 72   |   |  | 40  |                                      | 150   |
| U MANN A & L MANN D TOTAL                    | 500   | 0.85                     | 0.10                    | 374  | 207   | 167  | 40  | 6 688                                |       |
| OTHER  | 977   |                          |                         | 631  | 47  | 584  |   | 23 365                               |       |
| TOTAL-ROCKYFORD                              | 1 477   |                          |                         | 1 005  | 254   | 751  |   | 30 053                               |       |
| <b>ROLLA 079-06W6</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ROLLA                                  | 143   |                          |                         | 98   |   | 98   |   | 3 687                                |       |
| <b>ROMED 025-04W4</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ROMED                                  | 436   |                          |                         | 310  |   | 310  |   | 12 432                               |       |
| <b>RONALANE 013-12W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-RONALANE                               | 68  |                          |                         | 50   |   | 50   |   | 1 815                                |       |
| <b>ROSEBUD 027-21W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ROSEBUD                                | 139   |                          |                         | 94   |   | 94   |   | 4 047                                |       |
| <b>ROSEVEAR 054-15W5</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| BEAVERHILL LAKE A                            | 7 095   | 0.90                     | 0.17                    | 5 300  | 2 166   | 3 134  | 37  | 117 306                              | 3 201 |
| BEAVERHILL LAKE B                            | 6 095   | 0.85                     | 0.17                    | 4 300  | 873   | 3 427  | 37  | 128 273                              | 2 122 |
| OTHER  | 253   |                          |                         | 165  |   | 165  |   | 6 680                                |       |
| TOTAL-ROSEVEAR                               | 13 443  |                          |                         | 9 765  | 3 039   | 6 726  |   | 252 259                              |       |
| <b>ROSSBEAR (SA) 094-14W5</b>                |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ROSSBEAR                               | 10  |                          |                         | 6  |   | 6  |   | 225                                  |       |
| <b>ROUSSEAU (SA) 090-01W6</b>                |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ROUSSEAU                               | 10  |                          |                         | 6  |   | 6  |   | 236                                  |       |



| 10                          | 11       | 12          | 13                  | 14   | 15        | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------|-------------|---------------------|------|-----------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | (MINUTES) | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | WELL<br>DATE | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS                    |
| m                           | frac     | frac        | kpa                 | pc   | frac      | frac                           | m                          | year         |                          |  |
| 9.74                        | 0.151    | 0.90        | 26 880              | 75   | 0.846     | 0.69                           |                            | 1976         | 1979                     | TCPL                                       |
| 6.39                        | 0.143    | 0.65        | 27 060              | 81   | 0.863     | 0.88                           | 2 680.9                    | 1969         | 1983                     | CNG TCPL CONCURRENT PRODUCTION GAS CYCLING |
| 9.05                        | 0.130    | 0.85        | 13 930              | 53   | 0.785     | 0.69                           | 1 918.1                    | 1969         | 1984                     | CNG TCPL CONCURRENT PRODUCTION GAS CYCLING |
| 9.87                        | 0.112    | 0.85        | 14 120              | 65   | 0.806     | 0.68                           | 2 111.1                    | 1970         | 1983                     | TCPL CONCURRENT PRODUCTION                 |
| 11.90                       | 0.140    | 0.85        | 27 580              | 79   | 0.909     | 0.72                           | 2 633.1                    | 1984         | 1985                     | TCPL CONCURRENT PRODUCTION                 |
| 8.73                        | 0.101    | 0.70        | 19 930              | 69   | 0.854     | 0.66                           | 2 434.7                    | 1972         | 1985                     | CNG TCPL                                   |
| 7.24                        | 0.092    | 0.75        | 19 930              | 74   | 0.867     | 0.65                           | 2 317.3                    | 1972         | 1985                     | PROGAS TCPL                                |
| 20.80                       | 0.100    | 0.75        | 20 500              | 74   | 0.867     | 0.66                           | 2 793.1                    | 1978         | 1985                     | PANALTA                                    |
| 16.10                       | 0.098    | 0.90        | 20 650              | 76   | 0.849     | 0.71                           | 2 860.9                    | 1982         | 1985                     | TOP/BASE TW                                |
| 35.15                       | 0.076    | 0.90        | 40 610              | 108  | 0.914     | 0.79                           | 4 200.4                    | 1988         | 1984                     | AGS CNG TCPL PRODUCTION DECLINE            |
| 62.86                       | 0.033    | 0.80        | 39 970              | 116  | 0.950     | 0.82                           | 4 266.2                    | 1972         | 1982                     | CNG  |
| 124.66                      | 0.070    | 0.90        | 39 750              | 123  | 0.973     | 0.82                           | 4 469.0                    | 1969         | 1978                     | AGS CNG TCPL MATERIAL BALANCE              |
| 3.24                        | 0.182    | 0.85        | 11 450              | 42   | 0.783     | 0.71                           | 1 482.6                    | 1970         | 1982                     |  |
| 4.00                        | 0.210    | 0.70        | 10 670              | 42   | 0.805     | 0.67                           | 1 492.3                    | 1970         | 1985                     |  |
| 11.39                       | 0.089    | 0.85        | 32 810              | 116  | 0.997     | 0.71                           | 3 219.2                    | 1971         | 1984                     | DOMEDOW TCPL MATERIAL BALANCE              |
| 13.78                       | 0.089    | 0.85        | 32 810              | 116  | 0.997     | 0.71                           | 3 236.5                    | 1974         | 1984                     | TCPL MATERIAL BALANCE                      |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE    | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>ROUTE 062-08W6</b><br>TOTAL-ROUTE            | 201   |                          |                         | 134  | 6   | 128  |   | 4 818                                |        |
| <b>ROWLEY 032-20W4</b><br>BELLY RIVER A         | 558   | 0.65                     | 0.05                    | 345  | 236   | 109  | 37  | 4 080                                | 1 002  |
| PEKISKD A SOLN                                  | 613   | 0.65                     | 0.05                    | 378 <sup>b</sup>   |   |  | 40  |                                      |        |
| PEKISKD A ASSOC                                 | 1 409   | 0.92                     | 0.05                    | 1 230 <sup>b</sup>   | 1 121 <sup>b</sup>  | 487  | 40  | 19 504                               | 3 300  |
| OTHER   | 1 477   |                          |                         | 954  | 113   | 841  |   | 33 373                               |        |
| TOTAL-ROWLEY                                    | 4 057   |                          |                         | 2 907  | 1 470   | 1 437  |   | 56 957                               |        |
| <b>ROXANA 078-19W5</b><br>BELLOY A              | 554   | 0.70                     | 0.10                    | 349  | 1   | 348  | 40  | 13 809                               | 2 758  |
| OTHER   | 446   |                          |                         | 298  |   | 298  |   | 11 890                               |        |
| TOTAL-ROXANA                                    | 1 000   |                          |                         | 647  | 1   | 646  |   | 25 699                               |        |
| <b>ROYAL 053-16W4</b><br>TOTAL-ROYAL            | 1 984   |                          |                         | 1 257  | 52  | 1 205  |   | 47 031                               |        |
| <b>ROYCE 084-07W6</b><br>WABAMUN 02-084-07      | 578   | 0.75                     | 0.10                    | 390  |   | 390  | 37  | 14 598                               | 440    |
| OTHER   | 260   |                          |                         | 187  |   | 187  |   | 6 999                                |        |
| TOTAL-ROYCE                                     | 838   |                          |                         | 577  |   | 577  |   | 21 597                               |        |
| <b>RUBEN (SA) 083-03W5</b><br>TOTAL-RUBEN       | 5   |                          |                         | 3  |   | 3  |   | 117                                  |        |
| <b>RUMSEY 034-21W4</b><br>TOTAL-RUMSEY          | 930   |                          |                         | 604  | 79  | 525  |   | 20 617                               |        |
| <b>RUNDLE 065-16W4</b><br>TOTAL-RUNDLE          | 105   |                          |                         | 64   | 10  | 54   |   | 2 000                                |        |
| <b>RYAN (SA) 095-14W5</b><br>TOTAL-RYAN         | 45  |                          |                         | 26   |   | 26   |   | 1 022                                |        |
| <b>RYCROFT 077-04W6</b><br>TOTAL-RYCROFT        | 986   |                          |                         | 665  | 181   | 484  |   | 18 749                               |        |
| <b>SABBATH (SA) 106-12W6</b><br>TOTAL-SABBATH   | 10  |                          |                         | 6  |   | 6  |   | 247                                  |        |
| <b>SADDLE HILLS 076-08W6</b><br>PADDY B         | 627   | 0.70                     | 0.10                    | 395  | 311   | 84   | 38  | 3 207                                | 1 681  |
| OTHER   | 1 854   |                          |                         | 1 184  | 148   | 1 036  |   | 39 419                               |        |
| TOTAL-SADDLE HILLS                              | 2 481   |                          |                         | 1 579  | 459   | 1 120  |   | 42 626                               |        |
| <b>SAKWATAMAU 053-14W5</b><br>TOTAL-SAKWATAMAU  | 491   |                          |                         | 369  |   | 369  |   | 14 097                               |        |
| <b>SALESKI 086-18W4</b><br>GROSMONT A           | 1 227   | 0.50                     | 0.05                    | 583  | 125   | 458  | 37 <sup>a</sup>                             | 17 061                               | 31 139 |
| OTHER   | 363   |                          |                         | 174  |   | 174  |   | 6 504                                |        |
| TOTAL-SALESKI                                   | 1 590   |                          |                         | 757  | 125   | 632  |   | 23 565                               |        |
| <b>SALTER 027-08W5</b><br>RUNDLE A              | 3 467   | 0.70                     | 0.25                    | 1 820  | 3   | 1 817  | 39  | 71 408                               | 1 752  |
| TURNER VALLEY 026-08                            | 1 020   | 0.85                     | 0.25                    | 650  |   | 650  | 39  | 25 545                               | 1 161  |
| TOTAL-SALTER                                    | 4 487   |                          |                         | 2 470  | 3   | 2 467  |   | 96 953                               |        |
| <b>SAMSON 044-24W4</b><br>TOTAL-SAMSON          | 1 060   |                          |                         | 773  | 282   | 491  |   | 18 991                               |        |
| <b>SANDY 082-20W4</b><br>TOTAL-SANDY            | 15  |                          |                         | 9  |   | 9  |   | 337                                  |        |
| <b>SANGUDO 057-06W5</b><br>TOTAL-SANGUDO        | 449   |                          |                         | 314  | 2   | 312  |   | 12 466                               |        |
| <b>SAPPHIRE (SA) 002-05W4</b><br>TOTAL-SAPPHIRE | 101   |                          |                         | 72   |   | 72   |   | 2 695                                |        |



| 10                          | 11             | 12           | 13                  | 14       | 15             | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------------|--------------|---------------------|----------|----------------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY       | GAS<br>SATN  | INITIAL<br>PRESSURE | TEMP     | COMPRESS       | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS                                |
| m                           | frac           | frac         | kPa                 | °C       | frac           | frac                           | m                          |              |                          |  |
| 9.20                        | 0.310          | 0.60         | 3 160               | 21       | 0.940          | 0.57<br>0.68                   | 679.6                      | 1964<br>1960 | 1985<br>1985             | TCPL<br>TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION |
| 7.87                        | 0.067          | 0.75         | 10 070              | 46       | 0.813          | 0.68                           | 1 346.0                    | 1960         | 1985                     | TCPL MATERIAL BALANCE CONCURRENT<br>PRODUCTION         |
| 1.32                        | 0.270          | 0.80         | 6 840               | 39       | 0.885          | 0.61                           | 877.0                      | 1974         | 1983                     | PROGAS   |
| 15.85                       | 0.060          | 0.70         | 22 370              | 85       | 0.900          | 0.68                           | 2 128.4                    | 1974         | 1983                     | TCPL GAS   |
| 6.09                        | 0.150          | 0.60         | 7 020               | 52       | 0.903          | 0.61                           | 1 215.9                    | 1972         | 1978                     | NUL A&S CWNGNUL PANALTA TCPL                           |
| 13.09                       | 0.125          | 0.30         | 780                 | 9        | 0.981          | 0.58                           | 238.0                      | 1977         | 1982                     | KANNGAZ PANALTA  |
| 20.73<br>8.78               | 0.051<br>0.050 | 0.75<br>0.80 | 26 900<br>27 030    | 75<br>77 | 0.881<br>0.879 | 0.69<br>0.69                   | 2 669.1<br>2 689.6         | 1972<br>1972 | 1984<br>1982             | PANALTA TCPL TOP/BASE T&D<br>PANALTA                   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE   | 1   | 2  | 3  | 4  | 5   | 6  | 7   | 8  | 9   |
|--|---|--|--|--|---|--|---|--|---|
|  | RAW GAS   |  |  | MARKETABLE GAS   |   |  |   |  | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac   | SURFACE<br>LOSS<br>frac  | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup>         | REMAINING<br>ENERGY<br>CONTENT<br>TJ         |   |
| <b>SARAH 066-07W5</b><br>TOTAL-SARAH   | 107   |  |  | 79   |   | 79   |   | 3 208  |   |
| <b>SARCEE 023-04W5</b><br>RUNDLE A<br>TOTAL-SARCEE   | 6 743<br>6 743  | 0.85   | 0.18   | 4 700<br>4 700   | 3 194<br>3 194  | 1 506<br>1 506   | 39a   | 59 186<br>59 186                             | 1 304   |
| <b>SAUNDERS 040-13W5</b><br>RUNDLE B<br>TURNER VALLEY 219-040-13<br>TOTAL-SAUNDERS   | 1 607<br>798<br>2 405   | 0.40<br>0.60   | 0.10<br>0.10   | 579<br>431<br>1 010  | 81<br>81  | 498<br>431<br>929  | 39<br>39  | 19 387<br>16 779<br>36 166                   | 991<br>200  |
| <b>SAVANNA CREEK 014-04W5</b><br>RUNDLE A<br>TOTAL-SAVANNA CREEK   | 6 922<br>6 922  | 0.80   | 0.20   | 4 430<br>4 430   | 2 615<br>2 615  | 1 815<br>1 815   | 38  | 69 297<br>69 297                             | 4 048   |
| <b>SAWDY 069-22W4</b><br>TOTAL-SAWDY   | 185   |  |  | 116  | 15  | 101  |   | 3 769  |   |
| <b>SAXON (SA) 061-24W5</b><br>TOTAL-SAXON  | 261   |  |  | 183  |   | 183  |   | 6 850  |   |
| <b>SCANDIA 016-16W4</b><br>TOTAL-SCANDIA   | 294   |  |  | 226  | 144   | 82   |   | 3 201  |   |
| <b>SCOLL 033-21W4</b><br>TOTAL-SCOLL   | 244   |  |  | 161  | 37  | 124  |   | 5 338  |   |
| <b>SCULLY (SA) 100-20W5</b><br>TOTAL-SCULLY  | 85  |  |  | 61   |   | 61   |   | 2 215  |   |
| <b>SEAL 082-14W5</b><br>TOTAL-SEAL   | 921   |  |  | 574  |   | 574  |   | 22 541                                       |   |
| <b>SEDALIA 030-05W4</b><br>BELLY RIVER A<br>VIKING C<br>VIKING E<br>VIKING C & E TOTAL<br>VIKING A<br>VIKING F<br>UPPER MANNVILLE D<br>LOWER MANNVILLE B<br>VIK A&F, UMN D & LMN TOTAL<br>OTHER<br>TOTAL-SEDALIA | 1 300<br>5 456  | 0.50<br>0.80<br>0.75<br>0.75<br>0.70<br>0.70<br>0.83<br>0.40<br>0.60 | 0.05<br>0.08<br>0.08<br>0.10<br>0.08<br>0.08<br>0.05<br>0.05<br>0.05 | 618<br>1 050<br>241<br>5<br>43<br>91<br>380<br>1 019<br>3 067        | 490<br>607<br>286<br>472<br>1 855                                 | 128<br>443<br>94<br>547<br>1 212                                       | 38<br>38a<br>38<br>38<br>38<br>38<br>38<br>38<br>38 | 4 887<br>16 914<br>3 589<br>20 714<br>46 104 | 6 424<br>9 758<br>4 329<br>7 515<br>150<br>256<br>1 294 |
| <b>SEGEWICK 042-12W4</b><br>BASAL MANNVILLE A<br>BASAL MANNVILLE B<br>BASAL MANNVILLE A & B TOTAL<br>OTHER<br>TOTAL-SEGEWICK   | 547<br>66<br>613<br>447<br>1 060                                | 0.85<br>0.70<br>0.85   | 0.05<br>0.10<br>0.05   | 442<br>41<br>483<br>308<br>791                                       | 324<br>14<br>338  | 159<br>294<br>453  | 38a<br>38a<br>38a                                   | 6 012<br>11 131<br>17 143                    | 935<br>40   |
| <b>SEIU LAKE 025-18W4</b><br>UPPER MANNVILLE A<br>OTHER<br>TOTAL-SEIU LAKE   | 1 351<br>1 426<br>2 777   | 0.85   | 0.10   | 1 034<br>955<br>1 989  | 336<br>196<br>532   | 698<br>759<br>1 457  | 37  | 26 126<br>28 069<br>54 195                   | 4 822   |
| <b>SEXSMITH 074-06W6</b><br>TOTAL-SEXSMITH   | 482   |  |  | 302  | 92  | 210  |   | 7 865  |   |
| <b>SHADOW (SA) 074-17W5</b><br>TOTAL-SHADOW  | 48  |  |  | 35   |   | 35   |   | 1 441  |   |
| <b>SHANE 077-02W6</b><br>TOTAL-SHANE   | 654   |  |  | 499  | 89  | 410  |   | 16 113                                       |   |
| <b>SHANNON 026-06W4</b><br>TOTAL-SHANNON   | 126   |  |  | 84   |   | 84   |   | 3 482  |   |



| 10                          | 11       | 12          | 13                  | 14   | 15      | 16                             | 17                         | 18           | 19               | 20  |
|-----------------------------|----------|-------------|---------------------|------|---------|--------------------------------|----------------------------|--------------|------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMRESS | RAW LOG<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE<br>REVIEWED | DESCRIPTION AND REMARKS                         |
| m                           | frac     | frac        | kPa                 | °C   | frac    | frac                           | m                          |              |                  |   |
| 29.54                       | 0.080    | 0.80        | 26 300              | 81   | 0.903   | 0.72                           | 3 042.5                    | 1954         | 1984             | CWNG CWNGNUL MATERIAL BALANCE                   |
| 13.58                       | 0.059    | 0.80        | 32 030              | 93   | 0.984   | 0.63                           | 3 569.1                    | 1976         | 1984             | ICPL  |
| 31.92                       | 0.062    | 0.80        | 35 580              | 115  | 1.037   | 0.63                           | 3 989.8                    | 1977         | 1984             | ICPL  |
| 54.40                       | 0.040    | 0.85        | 19 070              | 58   | 0.845   | 0.64                           | 2 585.9                    | 1954         | 1984             | WCOAST MATERIAL BALANCE                         |
| 3.26                        | 0.342    | 0.70        | 1 370               | 7    | 0.967   | 0.56                           | 194.1                      | 1973         | 1985             | CWNG CWNGNUL ICPL PANALTA PRODUCTION<br>DECLINE |
| 1.10                        | 0.225    | 0.40        | 6 380               | 32   | 0.889   | 0.60                           | 835.5                      | 1954         | 1985             | MATERIAL BALANCE                                |
| 0.79                        | 0.195    | 0.45        | 6 280               | 32   | 0.895   | 0.59                           | 833.9                      | 1958         | 1985             | MATERIAL BALANCE                                |
| 1.64                        | 0.226    | 0.30        | 6 570               | 32   | 0.892   | 0.58                           | 748.4                      | 1954         | 1985             | PART OF VIK POOL NO.5 PRODUCTION DECLINE        |
| 1.40                        | 0.120    | 0.40        | 6 380               | 32   | 0.889   | 0.60                           | 782.4                      | 1957         | 1985             | PART OF VIK POOL NO.5                           |
| 2.44                        | 0.220    | 0.50        | 7 330               | 31   | 0.875   | 0.59                           | 801.6                      | 1976         | 1985             | PART OF VIK POOL NO.5 PRODUCTION DECLINE        |
| 2.20                        | 0.280    | 0.35        | 7 950               | 32   | 0.869   | 0.58                           | 829.3                      | 1968         | 1985             | PART OF VIK POOL NO.5 PRODUCTION DECLINE        |
|                             |          |             |                     |      |         |                                |                            | 1954         | 1985             | CWNGNUL MIP ICPL PART OF VIK POOL NO.5          |
| 3.34                        | 0.301    | 0.80        | 6 740               | 35   | 0.857   | 0.64                           | 897.3                      | 1954         | 1968             |   |
| 1.23                        | 0.301    | 0.80        | 6 740               | 35   | 0.857   | 0.64                           | 888.2                      | 1958         | 1982             | MATERIAL BALANCE                                |
|                             |          |             |                     |      |         |                                |                            | 1954         | 1969             | ICPL  |
| 2.07                        | 0.190    | 0.65        | 9 720               | 38   | 0.817   | 0.66                           | 1 325.9                    | 1960         | 1984             | ICPL  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE                            | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>SHAUNICY (SA) 006-03W4</b><br>TOTAL-SHAUNICY                         | 250   |                          |                         | 200  |   | 200  |   | 7 641                                |        |
| <b>SHAW 049-22W5</b>  |   |                          |                         |  |   |  |   |                                      |        |
| RUNDLE A  | 2 381   | 0.40                     | 0.10                    | 857  | 70  | 787  | 40  | 31 818                               | 2 348  |
| OTHER   | 169   |                          |                         | 114  | 40  | 74   |   | 3 019                                |        |
| TOTAL-SHAW  | 2 550   |                          |                         | 971  | 110   | 861  |   | 34 837                               |        |
| <b>SHEKILIE 117-09W6</b>  |   |                          |                         |  |   |  |   |                                      |        |
| SULPHUR POINT 08-119-07   | 425   | 0.85                     | 0.15                    | 307  |   | 307  | 39  | 12 065                               | 64     |
| KEG RIVER 11-118-08   | 988   | 0.80                     | 0.25                    | 593  |   | 593  | 43  | 25 529                               | 64     |
| OTHER   | 2 507   |                          |                         | 1 413  | 29  | 1 384  |   | 58 126                               |        |
| TOTAL-SHEKILIE  | 3 920   |                          |                         | 2 313  | 29  | 2 284  |   | 95 720                               |        |
| <b>SHETLAND 106-10W6</b><br>TOTAL-SHETLAND                              | 50  |                          |                         | 36   |   | 36   |   | 1 442                                |        |
| <b>SHOULDICE 020-23W4</b>   |   |                          |                         |  |   |  |   |                                      |        |
| GLAUCONITIC 02-020-23   | 492   | 0.75                     | 0.10                    | 332  |   | 332  | 38  | 12 576                               | 200    |
| GLAUCONITIC 02-020-23   | 944   | 0.70                     | 0.10                    | 595  |   | 595  | 38  | 22 497                               | 200    |
| OTHER   | 285   |                          |                         | 189  |   | 189  |   | 7 153                                |        |
| TOTAL-SHOULDICE   | 1 721   |                          |                         | 1 116  |   | 1 116  |   | 42 326                               |        |
| <b>SIBBALD 027-02W4</b>   |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A  | 1 037   | 0.80                     | 0.05                    | 789  | 659   | 130  | 37  | 4 866                                | 3 985  |
| OTHER   | 1 339   |                          |                         | 935  | 222   | 713  |   | 26 785                               |        |
| TOTAL-SIBBALD   | 2 376   |                          |                         | 1 724  | 881   | 843  |   | 31 651                               |        |
| <b>SILER 057-07W4</b><br>TOTAL-SILER                                    | 163   |                          |                         | 106  |   | 106  |   | 3 923                                |        |
| <b>SILVER 017-28W4</b><br>TOTAL-SILVER                                  | 241   |                          |                         | 174  |   | 174  |   | 6 382                                |        |
| <b>SIMONETTE 063-26W5</b>   |   |                          |                         |  |   |  |   |                                      |        |
| GETHING A   | 1 308   | 0.75                     | 0.10                    | 883  | 184   | 699  | 40  | 27 736                               | 1 579  |
| WABAMUN A   | 600   | 0.85                     | 0.35                    | 332  | 166   | 166  | 40  | 6 648                                | 100    |
| D-3 SOLN  | 10 344  | 0.34                     | 0.52                    | 1 688  | 1 555   | 133  | 38a   | 5 078                                |        |
| OTHER   | 2 907   |                          |                         | 1 947  | 150   | 1 797  |   | 69 765                               |        |
| TOTAL-SIMONETTE   | 15 159  |                          |                         | 4 850  | 2 055   | 2 795  |   | 109 227                              |        |
| <b>SIMONETTE NORTH (SA)</b><br><b>064-25W5</b><br>TOTAL-SIMONETTE NORTH | 47  |                          |                         | 33   |   | 33   |   | 1 309                                |        |
| <b>SINCLAIR 074-12W6</b>  |   |                          |                         |  |   |  |   |                                      |        |
| PADDY A   | 4 170   | 0.90                     | 0.15                    | 3 190  | 1 839   | 1 351  | 38  | 50 676                               | 3 298  |
| PADDY B   | 968   | 0.75                     | 0.10                    | 653  | 440   | 213  | 39  | 8 213                                | 1 728  |
| PADDY D   | 416   | 0.80                     | 0.10                    | 300  | 27  | 273  | 37  | 10 014                               | 1 714  |
| FALHER A  | 1 966   | 0.85                     | 0.15                    | 1 420  | 610   | 810  | 39  | 31 833                               | 9 690  |
| FALH A TIGHT SDO72-13   | 4 503   | 0.35                     | 0.15                    | 1 340  |   | 1 340  | 39  | 52 662                               | 9 666  |
| GETHING C   | 1 127   | 0.85                     | 0.05                    | 910  | 34  | 876  | 37  | 32 132                               | 2 907  |
| CADOMIN A   | 4 621   | 0.70                     | 0.15                    | 2 750  | 20  | 2 730  | 38  | 102 402                              | 13 752 |
| DOIG A  | 15 555  | 0.80                     | 0.10                    | 11 200   | 604   | 10 596   | 39  | 408 582                              | 8 332  |
| OTHER   | 5 568   |                          |                         | 3 794  | 584   | 3 210  |   | 122 908                              |        |
| TOTAL-SINCLAIR  | 38 894  |                          |                         | 25 557   | 4 158   | 21 399   |   | 819 422                              |        |
| <b>SIPHON (SA) 086-10W6</b><br>TOTAL-SIPHON                             | 27  |                          |                         | 19   |   | 19   |   | 711                                  |        |
| <b>SKARD 057-19W4</b><br>TOTAL-SKARD                                    | 196   |                          |                         | 124  |   | 124  |   | 4 874                                |        |
| <b>SKINNER 052-15W5</b><br>TOTAL-SKINNER                                | 620   |                          |                         | 395  |   | 395  |   | 14 785                               |        |
| <b>SKIPPER (SA) 079-25W4</b><br>TOTAL-SKIPPER                           | 60  |                          |                         | 35   |   | 35   |   | 1 297                                |        |
| <b>SLAVE 084-14W5</b><br>TOTAL-SLAVE                                    | 184   |                          |                         | 124  |   | 124  |   | 4 697                                |        |



| 10                          | 11       | 12          | 13                  | 14   | 15    | 16                       | 17                         | 18           | 19           | 20  |
|-----------------------------|----------|-------------|---------------------|------|-------|--------------------------|----------------------------|--------------|--------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | (MIN) | RELATIVE<br>PERMEABILITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE<br>YEAR | DESCRIPTION AND REMARKS                   |
| m                           | frac     | frac        | hPa                 | sec  | frac  | frac                     | m                          |              |              |   |
| 10.58                       | 0.050    | 0.85        | 33 270              | 137  | 1.023 | 0.62                     | 3 973.0                    | 1973         | 1984         | TCPL TOP/BASE TWO                         |
| 60.13                       | 0.098    | 0.85        | 13 710              | 66   | 0.867 | 0.68                     | 1 634.5                    | 1969         | 1969         |   |
| 85.00                       | 0.100    | 0.80        | 19 860              | 71   | 0.754 | 0.85                     | 1 732.5                    | 1983         | 1984         |   |
| 13.50                       | 0.250    | 0.89        | 7 580               | 41   | 0.848 | 0.68                     | 1 438.0                    | 1981         | 1982         | KANNIAZ                                   |
| 13.50                       | 0.250    | 0.89        | 13 640              | 45   | 0.785 | 0.67                     | 1 638.0                    | 1981         | 1982         | KANNIAZ                                   |
| 2.38                        | 0.221    | 0.70        | 6 880               | 31   | 0.890 | 0.58                     | 763.5                      | 1951         | 1973         | TCPL CWSGNUL MATERIAL BALANCE             |
| 4.97                        | 0.129    | 0.70        | 19 530              | 77   | 0.860 | 0.64                     | 2 525.6                    | 1970         | 1984         | A&S                                       |
| 47.49                       | 0.080    | 0.85        | 34 160              | 104  | 0.869 | 0.81                     | 3 365.0                    | 1959         | 1982         | MATERIAL BALANCE                          |
|                             |          |             |                     |      |       | 0.82                     |                            | 1958         | 1985         |   |
| 6.43                        | 0.155    | 0.80        | 12 700              | 60   | 0.818 | 0.68                     | 1 665.0                    | 1978         | 1985         | PROGAS TCPL MATERIAL BALANCE              |
| 6.40                        | 0.116    | 0.75        | 10 270              | 67   | 0.854 | 0.66                     | 1 615.3                    | 1978         | 1980         | PROGAS TCPL                               |
| 3.47                        | 0.111    | 0.55        | 10 910              | 55   | 0.825 | 0.67                     | 1 451.7                    | 1978         | 1985         | PANALTA PROGAS TCPL                       |
| 3.39                        | 0.067    | 0.65        | 14 130              | 73   | 0.845 | 0.67                     | 1 811.8                    | 1977         | 1985         | PANALTA PROGAS TCPL                       |
| 6.82                        | 0.082    | 0.60        | 14 150              | 70   | 0.845 | 0.67                     | 1 821.8                    | 1956         | 1985         | PROGAS TCPL PANALTA                       |
| 4.49                        | 0.102    | 0.65        | 13 710              | 73   | 0.865 | 0.64                     | 1 792.5                    | 1977         | 1981         | PANALTA PROGAS TCPL                       |
| 6.18                        | 0.050    | 0.60        | 18 810              | 88   | 0.903 | 0.62                     | 2 364.4                    | 1956         | 1985         | PANALTA PROGAS TCPL PART OF CDM POOL NO.1 |
| 11.38                       | 0.093    | 0.85        | 26 120              | 101  | 0.951 | 0.62                     | 2 505.1                    | 1977         | 1985         | PANALTA PROGAS TCPL CWSGNUL               |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE       | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| SMITH 071-25W4<br>TOTAL-SMITH                      | 694   |                          |                         | 434  |   | 434  |   | 16 243                               |        |
| SMITH COULEE 004-11W4                              |   |                          |                         |  |   |  |   |                                      |        |
| BOW ISLAND A                                       | 941   | 0.85                     | 0.05                    | 761  | 681   | 80   | 35  | 2 785                                | 33 720 |
| BOW ISLAND B                                       | 409   | 0.85                     | 0.05                    | 330  | 307   | 23   | 35  | 801                                  | 4 973  |
| OTHER  | 102   |                          |                         | 66   | 8   | 58   |   | 2 050                                |        |
| TOTAL-SMITH COULEE                                 | 1 452   |                          |                         | 1 157  | 996   | 161  |   | 5 636                                |        |
| SMOKY (SA) 058-03W6<br>TOTAL-SMOKY                 | 189   |                          |                         | 135  |   | 135  |   | 5 053                                |        |
| SMOKY HEIGHTS (SA) 074-02W6<br>TOTAL-SMOKY HEIGHTS | 118   |                          |                         | 79   |   | 79   |   | 3 164                                |        |
| SNAKE (SA) 017-24W4<br>TOTAL-SNAKE                 | 37  |                          |                         | 23   |   | 23   |   | 861                                  |        |
| SNEDDON 080-10W6<br>TOTAL-SNEDDON                  | 394   |                          |                         | 278  |   | 278  |   | 10 437                               |        |
| SNIPER LAKE 071-18W5<br>TOTAL-SNIPER LAKE          | 1 828   |                          |                         | 293  | 220   | 73   |   | 3 060                                |        |
| SNOWFALL (SA) 099-08W6<br>TOTAL-SNOWFALL           | 13  |                          |                         | 8  |   | 8  |   | 299                                  |        |
| SOARS 059-02W4<br>TOTAL-SOARS                      | 177   |                          |                         | 110  |   | 110  |   | 4 117                                |        |
| SOLDAR (SA) 093-21W5<br>TOTAL-SOLDAR               | 57  |                          |                         | 38   |   | 38   |   | 1 422                                |        |
| SORENSEN 032-12W4<br>TOTAL-SORENSEN                | 174   |                          |                         | 126  |   | 126  |   | 4 937                                |        |
| SOUNDING 030-09W4<br>TOTAL-SOUNDING                | 1 079   |                          |                         | 721  | 308   | 413  |   | 15 560                               |        |
| SOUSA 112-05W6                                     |   |                          |                         |  |   |  |   |                                      |        |
| BLUESKY A  | 1 856   | 0.50                     | 0.05                    | 882  |   |  | 37  |                                      | 22 387 |
| BLUESKY A  | 5   | 0.65                     | 0.05                    | 3  |   |  | 37  |                                      | 200    |
| BLUESKY A  | 9   | 0.65                     | 0.05                    | 6  |   |  | 37  |                                      | 200    |
| BLUESKY A  | 6   | 0.65                     | 0.05                    | 4  |   |  | 37  |                                      | 200    |
| BLUESKY A  | 26  | 0.55                     | 0.05                    | 16   |   |  | 37  |                                      | 200    |
| BLUESKY A  | 10  | 0.65                     | 0.05                    | 6  |   |  | 37  |                                      | 200    |
| BLUESKY A  | 5   | 0.65                     | 0.05                    | 3  |   |  | 37  |                                      | 200    |
| BLUESKY A  | 5   | 0.65                     | 0.05                    | 3  |   |  | 37  |                                      | 200    |
| BLUESKY A  | 8   | 0.65                     | 0.05                    | 5  |   |  | 39  |                                      | 200    |
| BLUESKY A TOTAL                                    | 1 930   | 0.50                     | 0.05                    | 928  | 37  | 891  | 37  | 33 350                               |        |
| OTHER  | 304   |                          |                         | 205  |   | 205  |   | 8 337                                |        |
| TOTAL-SOUSA  | 2 234   |                          |                         | 1 133  | 37  | 1 096  |   | 41 687                               |        |
| SPENCER 066-08W4<br>TOTAL-SPENCER                  | 45  |                          |                         | 25   |   | 25   |   | 925                                  |        |
| SPIERS 034-15W4<br>TOTAL-SPIERS                    | 1 046   |                          |                         | 686  | 160   | 526  |   | 19 914                               |        |
| SPIRIT RIVER 078-07W6<br>TOTAL-SPIRIT RIVER        | 1 258   |                          |                         | 883  |   | 883  |   | 33 122                               |        |
| SPRUCE GROVE 059-27W4<br>TOTAL-SPRUCE GROVE        | 104   |                          |                         | 72   |   | 72   |   | 2 668                                |        |



| 10                          | 11             | 12           | 13                  | 14       | 15             | 16                             | 17                         | 18           | 19                       | 20   |
|-----------------------------|----------------|--------------|---------------------|----------|----------------|--------------------------------|----------------------------|--------------|--------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY       | GAS<br>SATN  | INITIAL<br>PRESSURE | TEMP     | COMPRESS       | RAW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | WELL<br>YEAR | DATE<br>LAST<br>REVISION | DESCRIPTION AND REMARKS  |
| m                           | frac           | frac         | kPa                 | °C       | frac           | frac                           | m                          |              |                          |  |
| 0.92<br>0.90                | 0.207<br>0.240 | 0.70<br>0.60 | 4 340<br>4 360      | 19<br>24 | 0.919<br>0.923 | 0.59<br>0.58                   | 625.8<br>648.3             | 1941<br>1967 | 1984<br>1985             | CMG MATERIAL BALANCE<br>CMG MATERIAL BALANCE   |
| 3.56<br>1.00                | 0.210<br>0.210 | 0.40<br>0.40 | 2 690<br>2 690      | 19<br>19 | 0.945<br>0.945 | 0.59<br>0.59                   | 335.3<br>244.5             | 1972<br>1972 | 1982<br>1982             | PART OF BLSKY POOL NO. 1<br>PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-6-112-1 w6M |
| 2.00                        | 0.210          | 0.40         | 2 690               | 19       | 0.945          | 0.59                           | 232.0                      | 1972         | 1982                     | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-21-112-1 w6M                            |
| 1.30                        | 0.210          | 0.40         | 2 690               | 19       | 0.945          | 0.59                           | 238.9                      | 1972         | 1982                     | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-4-112-2 w6M                             |
| 5.50                        | 0.210          | 0.40         | 2 690               | 19       | 0.945          | 0.59                           | 235.3                      | 1972         | 1983                     | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-11-112-2 w6M                            |
| 2.10                        | 0.210          | 0.40         | 2 690               | 19       | 0.945          | 0.59                           | 222.0                      | 1972         | 1982                     | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-28-112-2 w6M                            |
| 0.70                        | 0.293          | 0.40         | 2 690               | 19       | 0.945          | 0.59                           | 262.4                      | 1972         | 1982                     | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>6-3-112-4 w6M                              |
| 1.00                        | 0.210          | 0.40         | 2 690               | 19       | 0.945          | 0.59                           | 237.5                      | 1972         | 1982                     | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>6-11-112-4 w6M                             |
| 0.93                        | 0.270          | 0.60         | 2 690               | 19       | 0.945          | 0.60                           | 229.8                      | 1972         | 1982                     | PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>7-11-113-1 w6M                             |
|                             |                |              |                     |          |                |                                |                            | 1972         | 1982                     | PANALTA PART OF BLSKY POOL NO. 1   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>SPUR 072-02W5</b>                         |   |                          |                         |  |   |  |   |                                      |       |
| WABISKAW A                                   | 486   | 0.80                     | 0.05                    | 370  | 49  | 321  | 40  | 12 856                               | 3 028 |
| OTHER  | 212   |                          |                         | 140  |   | 140  |   | 5 492                                |       |
| TOTAL-SPUR                                   | 698   |                          |                         | 510  | 49  | 461  |   | 18 348                               |       |
| <b>SPUTINA (SA) 096-24W4</b>                 |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SPUTINA                                | 45  |                          |                         | 24   |   | 24   |   | 889                                  |       |
| <b>ST ALBERT-BIG LAKE 053-26W4</b>           |   |                          |                         |  |   |  |   |                                      |       |
| OSTRACOD A                                   | 3 393   | 0.85                     | 0.05                    | 2 740  | 2 577   | 163  | 40a   | 6 528                                | 3 215 |
| ST ALBERT BSL QTZ B                          | 589   | 0.85                     | 0.05                    | 476  |   | 476  | 40  | 19 064                               | 429   |
| OTHER  | 618   |                          |                         | 329  | 10  | 319  |   | 12 776                               |       |
| TOTAL-ST ALBERT-BIG LAKE                     | 4 600   |                          |                         | 3 545  | 2 587   | 958  |   | 38 368                               |       |
| <b>ST ANNE 054-04W5</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-ST ANNE                                | 658   |                          |                         | 444  | 16  | 428  |   | 16 643                               |       |
| <b>ST PAUL 058-09W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| UPPER MANNVILLE A                            | 1 104   | 0.80                     | 0.05                    | 839  | 192   | 647  | 37  | 24 217                               | 1 487 |
| OTHER  | 668   |                          |                         | 471  | 14  | 457  |   | 17 107                               |       |
| TOTAL-ST PAUL                                | 1 772   |                          |                         | 1 310  | 206   | 1 104  |   | 41 324                               |       |
| <b>STANDARD 026-22W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| VIKING A                                     | 741   | 0.90                     | 0.05                    | 634  | 93  | 541  | 37  | 20 250                               | 1 703 |
| OTHER  | 12  |                          |                         | 9  |   | 9  |   | 337                                  |       |
| TOTAL-STANDARD                               | 753   |                          |                         | 643  | 93  | 550  |   | 20 587                               |       |
| <b>STANMORE 029-11W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| VIKING A & B                                 | 1 654   | 0.70                     | 0.05                    | 1 100  |   |  | 37  |                                      | 7 574 |
| VIKING A & B TOTAL                           | 1 654   | 0.70                     | 0.05                    | 1 100  | 927   | 173  | 37  | 6 475                                |       |
| UPPER MANNVILLE Z                            | 941   | 0.85                     | 0.05                    | 760  | 573   | 187  | 39  | 7 349                                | 2 753 |
| UPPER MANNVILLE A ASSOC                      | 566   | 0.85                     | 0.05                    | 456  |   |  | 39  |                                      | 1 235 |
| UPPER MANNVILLE C                            | 16  | 0.85                     | 0.05                    | 13   |   |  | 39  |                                      | 200   |
| UPPER MANNVILLE A & C TOTAL                  | 582   | 0.85                     | 0.05                    | 469  | 57  | 412  | 39  | 16 192                               |       |
| OTHER  | 4 497   |                          |                         | 3 159  | 1 015   | 2 144  |   | 82 990                               |       |
| TOTAL-STANMORE                               | 7 674   |                          |                         | 5 488  | 2 572   | 2 916  |   | 113 006                              |       |
| <b>STEELE 066-25W4</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STEELE                                 | 2 528   |                          |                         | 1 614  | 656   | 958  |   | 35 733                               |       |
| <b>STEEN 108-01W6</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| BLUESKY A                                    | 107   | 0.50                     | 0.05                    | 51   |   |  | 37  |                                      | 2 603 |
| BLUESKY A                                    | 7   | 0.65                     | 0.05                    | 5  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 21  | 0.65                     | 0.05                    | 13   |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 20  | 0.65                     | 0.05                    | 12   |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 16  | 0.55                     | 0.05                    | 9  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 50  | 0.65                     | 0.05                    | 31   |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 49  | 0.65                     | 0.05                    | 30   |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 42  | 0.65                     | 0.05                    | 26   |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 5   | 0.65                     | 0.05                    | 3  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 13  | 0.55                     | 0.05                    | 7  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 16  | 0.55                     | 0.05                    | 9  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 36  | 0.65                     | 0.05                    | 22   |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 12  | 0.55                     | 0.05                    | 7  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 8   | 0.55                     | 0.05                    | 4  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 9   | 0.55                     | 0.05                    | 5  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 4   | 0.55                     | 0.05                    | 2  |   |  | 37  |                                      | 200   |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18          | 19                       | 20                                    |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|-------------|--------------------------|---------------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | DAY<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | NEW DAY<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | EST<br>TRAP | DATE<br>LAST<br>REVIEWED | DESCRIPTION AND REMARKS               |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |             |                          |                                       |
| 2.08                        | 0.278    | 0.80        | 3 530               | 29   | 0.838    | 0.57                           | 576.5                      | 1979        | 1985                     |                                       |
| 2.77                        | 0.207    | 0.70        | 9 380               | 48   | 0.846    | 0.59                           | 1 130.2                    | 1983        | 1982                     | NORCEN PRODUCTION DECLINE             |
| 10.06                       | 0.200    | 0.70        | 9 410               | 49   | 0.850    | 0.60                           | 1 158.2                    | 1982        | 1984                     |                                       |
| 2.10                        | 0.300    | 0.60        | 3 280               | 16   | 0.930    | 0.58                           | 479.3                      | 1949        | 1985                     | LOC O PANALTA PWGE MATERIAL BALANCE   |
| 2.56                        | 0.200    | 0.70        | 8 890               | 30   | 0.844    | 0.63                           | 1 282.0                    | 1956        | 1973                     | TCPL                                  |
| 3.52                        | 0.267    | 0.60        | 7 310               | 33   | 0.870    | 0.61                           | 874.5                      | 1961        | 1982                     | MATERIAL BALANCE                      |
| 1.76                        | 0.205    | 0.55        | 4 450               | 38   | 0.825    | 0.79                           | 1 043.5                    | 1961        | 1982                     | PROGAS SLPETRO TCPL                   |
| 3.37                        | 0.200    | 0.60        | 9 960               | 34   | 0.814    | 0.64                           | 1 020.4                    | 1970        | 1983                     | TCPL PRODUCTION DECLINE               |
| 1.00                        | 0.200    | 0.40        | 8 870               | 33   | 0.815    | 0.64                           | 1 020.5                    | 1971        | 1982                     | TCPL OIL POOL DEPLETED                |
|                             |          |             |                     |      |          |                                |                            | 1970        | 1982                     |                                       |
| 1.91                        | 0.210    | 0.40        | 2 480               | 19   | 0.945    | 0.59                           | 335.3                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1               |
| 1.50                        | 0.210    | 0.40        | 2 480               | 16   | 0.945    | 0.59                           | 232.3                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
| 6.10                        | 0.170    | 0.40        | 2 480               | 16   | 0.945    | 0.59                           | 229.5                      | 1972        | 1982                     | 6-8-107-21 WSM                        |
| 4.57                        | 0.210    | 0.40        | 2 480               | 16   | 0.945    | 0.59                           | 241.1                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
| 3.81                        | 0.200    | 0.40        | 2 480               | 16   | 0.945    | 0.59                           | 255.7                      | 1972        | 1982                     | 10-20-107-21 WSM                      |
| 11.19                       | 0.217    | 0.40        | 2 480               | 18   | 0.945    | 0.59                           | 292.5                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
| 10.67                       | 0.210    | 0.40        | 2 660               | 19   | 0.945    | 0.59                           | 345.7                      | 1972        | 1982                     | 6-3-107-22 WSM                        |
| 9.75                        | 0.210    | 0.40        | 2 480               | 18   | 0.945    | 0.59                           | 308.9                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
| 1.22                        | 0.210    | 0.40        | 2 480               | 15   | 0.945    | 0.59                           | 222.1                      | 1972        | 1982                     | 10-11-107-23 WSM                      |
| 3.05                        | 0.210    | 0.40        | 2 480               | 18   | 0.945    | 0.59                           | 298.5                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
| 3.66                        | 0.210    | 0.40        | 2 480               | 17   | 0.945    | 0.59                           | 285.9                      | 1972        | 1982                     | 7-21-107-24 WSM                       |
| 8.23                        | 0.210    | 0.40        | 2 480               | 17   | 0.945    | 0.59                           | 292.9                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
| 2.70                        | 0.210    | 0.40        | 2 480               | 16   | 0.945    | 0.59                           | 273.7                      | 1972        | 1982                     | 10-36-108-24 WSM                      |
| 1.80                        | 0.210    | 0.40        | 2 480               | 17   | 0.945    | 0.59                           | 282.4                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
| 2.10                        | 0.210    | 0.40        | 2 480               | 17   | 0.945    | 0.59                           | 313.8                      | 1972        | 1982                     | 10-16-109-23 WSM                      |
| 0.90                        | 0.180    | 0.50        | 2 480               | 17   | 0.945    | 0.59                           | 309.7                      | 1972        | 1982                     | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
|                             |          |             |                     |      |          |                                |                            |             |                          | 11-20-109-23 WSM                      |
|                             |          |             |                     |      |          |                                |                            |             |                          | 6-32-109-24 WSM                       |
|                             |          |             |                     |      |          |                                |                            |             |                          | PART OF BLSKY POOL NO.1 ASSIGNED WELL |
|                             |          |             |                     |      |          |                                |                            |             |                          | 10-34-109-24 WSM                      |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>STEEN 108-01W6 (CONTINUED)</b>            |   |                          |                         |  |   |  |   |                                      |       |
| BLUESKY A                                    | 26  | 0.65                     | 0.05                    | 16   |   |  | 47  |                                      | 200   |
| BLUESKY A                                    | 9   | 0.55                     | 0.05                    | 5  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 5   | 0.55                     | 0.05                    | 3  |   |  | 37  |                                      | 200   |
| BLUESKY A                                    | 248   | 0.50                     | 0.05                    | 118  |   |  | 37  |                                      | 5 054 |
| BLUESKY A TOTAL                              | 703   | 0.55                     | 0.05                    | 378  |   | 378  | 37  | 14 149                               |       |
| OTHER  | 26  |                          |                         | 16   |   | 16   |   | 622                                  |       |
| TOTAL-STEEN                                  | 729   |                          |                         | 394  |   | 394  |   | 14 771                               |       |
| <b>STEEP BANK (SA) 094-07W4</b>              |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STEEP BANK                             | 69  |                          |                         | 32   |   | 32   |   | 1 198                                |       |
| <b>STEEP CREEK 066-07W6</b>                  |   |                          |                         |  |   |  |   |                                      |       |
| FALHER E-1                                   | 540   | 0.85                     | 0.05                    | 436  | 144   | 292  | 38  | 11 149                               | 440   |
| CADOMIN 10-066-07                            | 505   | 0.85                     | 0.05                    | 408  |   | 408  | 38  | 15 577                               | 200   |
| BELLOY 26-066-07                             | 598   | 0.75                     | 0.05                    | 426  |   | 426  | 37  | 15 945                               | 440   |
| OTHER  | 1 255   |                          |                         | 882  | 34  | 848  |   | 32 595                               |       |
| TOTAL-STEEP CREEK                            | 2 898   |                          |                         | 2 152  | 178   | 1 974  |   | 75 266                               |       |
| <b>STETTTLER 038-20W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STETTTLER                              | 1 264   |                          |                         | 313  | 190   | 123  |   | 4 643                                |       |
| <b>STETTTLER NORTH 039-20W4</b>              |   |                          |                         |  |   |  |   |                                      |       |
| LOWER MANVILLE B                             | 716   | 0.75                     | 0.10                    | 483  | 208   | 275  | 41  | 11 220                               | 622   |
| OTHER  | 278   |                          |                         | 142  | 12  | 130  |   | 5 288                                |       |
| TOTAL-STETTTLER NORTH                        | 994   |                          |                         | 625  | 220   | 405  |   | 16 508                               |       |
| <b>STETTTLER SOUTH 037-20W4</b>              |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STETTTLER SOUTH                        | 322   |                          |                         | 142  | 33  | 109  |   | 4 108                                |       |
| <b>STEVE 059-07W4</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STEVE                                  | 438   |                          |                         | 277  | 111   | 166  |   | 6 209                                |       |
| <b>STEWART 032-28W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STEWART                                | 197   |                          |                         | 126  |   | 126  |   | 4 716                                |       |
| <b>STIMSON (SA) 015-02W5</b>                 |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STIMSON                                | 58  |                          |                         | 28   |   | 28   |   | 1 100                                |       |
| <b>STIRLING 007-19W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| BOW ISLAND A                                 | 445   | 0.85                     | 0.05                    | 361  | 334   | 27   | 34a   | 930                                  | 3 881 |
| OTHER  | 19  |                          |                         | 10   |   | 10   |   | 344                                  |       |
| TOTAL-STIRLING                               | 464   |                          |                         | 371  | 334   | 37   |   | 1 274                                |       |
| <b>STOLBERG 042-15W5</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| RUNDLE A                                     | 2 710   | 0.50                     | 0.10                    | 1 220  |   |  | 39  |                                      | 1 025 |
| RUNDLE B                                     | 4 022   | 0.50                     | 0.10                    | 1 810  |   |  | 39  |                                      | 2 759 |
| RUNDLE C                                     | 553   | 0.50                     | 0.10                    | 249  |   |  | 39  |                                      | 440   |
| RUNDLE D                                     | 1 566   | 0.50                     | 0.10                    | 705  |   |  | 39  |                                      | 1 794 |
| RUNDLE A,B,C & D TOTAL                       | 8 851   | 0.50                     | 0.10                    | 3 984  | 702   | 3 282  | 39  | 127 768                              |       |
| RUNDLE E                                     | 1 033   | 0.45                     | 0.10                    | 418  |   |  | 39  |                                      | 440   |
| RUNDLE F                                     | 805   | 0.45                     | 0.10                    | 326  |   |  | 39  |                                      | 335   |
| RUNDLE G                                     | 563   | 0.50                     | 0.10                    | 253  |   |  | 39  |                                      | 440   |
| RUNDLE E,F & G TOTAL                         | 2 401   | 0.45                     | 0.10                    | 997  | 323   | 674  | 39  | 26 239                               |       |
| OTHER  | 227   |                          |                         | 153  |   | 153  |   | 5 956                                |       |
| TOTAL-STOLBERG                               | 11 479  |                          |                         | 5 134  | 1 025   | 4 109  |   | 159 963                              |       |
| <b>STONY PLAIN (SA) 053-01W5</b>             |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STONY PLAIN                            | 100   |                          |                         | 67   |   | 67   |   | 2 683                                |       |
| <b>STOWE (SA) 091-01W6</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-STOWE                                  | 15  |                          |                         | 9  |   | 9  |   | 337                                  |       |
| <b>STRACHAN 037-09W5</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| GLAUCONITIC B                                | 1 063   | 0.80                     | 0.10                    | 765  | 141   | 624  | 38  | 23 824                               | 2 041 |
| GLAUCONITIC D                                | 610   | 0.80                     | 0.05                    | 464  | 108   | 356  | 38  | 13 592                               | 1 056 |
| D-3 A  | 40 741  | 0.90                     | 0.25                    | 27 500   | 21 549  | 5 951  | 41  | 242 801                              | 1 900 |
| D-3 B  | 1 099   | 0.80                     | 0.20                    | 704  | 295   | 409  | 41  | 16 687                               | 645   |
| D-3 C  | 1 998   | 0.80                     | 0.20                    | 1 280  | 723   | 557  | 38  | 21 060                               | 687   |
| OTHER  | 2 708   |                          |                         | 1 866  | 128   | 1 738  |   | 65 807                               |       |



| 10                          | 11       | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18           | 19              | 20   |
|-----------------------------|----------|-------------|---------------------|------|----------|--------------------------------|----------------------------|--------------|-----------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | COMPRESS | RAW OIL<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH | DATE<br>YEAR | DATE<br>REVISED | DESCRIPTION AND REMARKS                                      |
| m                           | frac     | frac        | kPa                 | °C   | frac     | frac                           | m                          |              |                 |  |
| 4.30                        | 0.240    | 0.50        | 2 480               | 18   | 0.945    | 0.59                           | 316.5                      | 1972         | 1983            | PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>20-23-104-1 WSM     |
| 1.52                        | 0.240    | 0.50        | 2 480               | 17   | 0.945    | 0.59                           | 301.6                      | 1972         | 1982            | PART OF BLSKY POOL NO.1                                      |
| 1.20                        | 0.210    | 0.40        | 2 480               | 17   | 0.945    | 0.59                           | 297.8                      | 1972         | 1982            | BEC PART OF BLSKY POOL NO.1 ASSIGNED WELL<br>7-22-110-24 WSM |
| 1.87                        | 0.200    | 0.50        | 2 480               | 11   | 0.945    | 0.59                           | 209.8                      | 1972         | 1985            | PART OF BLSKY POOL NO.1                                      |
|                             |          |             |                     |      |          |                                |                            | 1972         | 1982            | TCPL PART OF BLSKY POOL NO.1                                 |
| 6.40                        | 0.095    | 0.75        | 31 300              | 72   | 0.958    | 0.60                           | 2 408.8                    | 1981         | 1981            | PANALTA PROGAS   |
| 15.85                       | 0.130    | 0.70        | 22 400              | 111  | 0.947    | 0.70                           | 2 822.5                    | 1978         | 1983            | TCPL   |
| 6.70                        | 0.120    | 0.75        | 29 800              | 125  | 0.944    | 0.66                           | 3 191.2                    | 1956         | 1982            | PANALTA TCPL   |
| 3.57                        | 0.209    | 0.75        | 9 600               | 54   | 0.867    | 0.66                           | 1 341.0                    | 1962         | 1985            | LOC U PWGE TCPL MATERIAL BALANCE<br>NONCOMMERCIAL GIL        |
| 2.56                        | 0.204    | 0.65        | 3 340               | 27   | 0.941    | 0.58                           | 785.8                      | 1957         | 1973            | CWNG CWNGNUL   |
| 24.06                       | 0.050    | 0.85        | 31 830              | 107  | 0.998    | 0.65                           | 3 252.0                    | 1957         | 1984            |  |
| 15.90                       | 0.047    | 0.85        | 32 470              | 112  | 1.045    | 0.64                           | 3 802.0                    | 1957         | 1984            |  |
| 13.10                       | 0.047    | 0.85        | 33 290              | 117  | 1.010    | 0.65                           | 4 115.7                    | 1957         | 1984            | TOP/BASE TVD   |
| 8.94                        | 0.048    | 0.85        | 33 400              | 117  | 1.019    | 0.65                           | 3 961.5                    | 1974         | 1984            | TOP/BASE TVD   |
|                             |          |             |                     |      |          |                                |                            | 1957         | 1984            | PANALTA TCPL   |
| 21.30                       | 0.052    | 0.85        | 31 770              | 91   | 0.995    | 0.64                           | 3 386.0                    | 1976         | 1984            |  |
| 19.27                       | 0.058    | 0.85        | 32 310              | 94   | 0.990    | 0.63                           | 3 769.0                    | 1976         | 1984            |  |
| 12.60                       | 0.050    | 0.85        | 33 400              | 117  | 1.019    | 0.65                           | 3 982.5                    | 1974         | 1984            |  |
|                             |          |             |                     |      |          |                                |                            | 1976         | 1984            | TCPL PANALTA   |
| 4.18                        | 0.071    | 0.70        | 32 110              | 99   | 0.979    | 0.65                           | 3 000.2                    | 1981         | 1985            | CNG PROGAS TCPL  |
| 3.63                        | 0.091    | 0.70        | 31 920              | 98   | 0.980    | 0.64                           | 2 949.5                    | 1972         | 1984            | CNG TCPL   |
| 112.93                      | 0.077    | 0.90        | 49 300              | 124  | 1.153    | 0.76                           | 4 110.9                    | 1967         | 1984            | CNG TCPL MATERIAL BALANCE TOP/BASE STD                       |
| 51.51                       | 0.031    | 0.80        | 49 190              | 124  | 1.146    | 0.74                           | 4 098.0                    | 1969         | 1974            | TCPL PRODUCTION DECLINE TOP/BASE STD                         |
| 29.08                       | 0.050    | 0.85        | 31 410              | 116  | 0.977    | 0.70                           | 3 712.2                    | 1972         | 1975            | TCPL   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9       |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|---------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA    |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |         |
| <b>STRACHAN 037-09W5<br/>(CONTINUED)</b>     |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-STRACHAN                               | 48 219  |                          |                         | 32 579   | 22 944  | 9 635  |   | 383 771                              |         |
| <b>STRATHMORE 024-25W4</b>                   |   |                          |                         |  |   |  |   |                                      |         |
| BELLY RIVER A                                | 1 163   | 0.80                     | 0.05                    | 884  | 511   | 373  | 37 <sup>a</sup>                             | 13 823                               | 2 211   |
| BELLY RIVER E                                | 865   | 0.50                     | 0.05                    | 411  | 183   | 228  | 37 <sup>a</sup>                             | 8 450                                | 440     |
| BELLY RIVER J                                | 750   | 0.50                     | 0.05                    | 356  | 132   | 224  | 37  | 8 301                                | 200     |
| OTHER  | 3 071   |                          |                         | 1 715  | 791   | 924  |   | 34 597                               |         |
| TOTAL-STRATHMORE                             | 5 849   |                          |                         | 3 366  | 1 617   | 1 749  |   | 65 171                               |         |
| <b>STROME 044-16W4</b>                       |   |                          |                         |  |   |  |   |                                      |         |
| MANNVILLE G                                  | 818   | 0.75                     | 0.05                    | 583  | 18  | 565  | 39  | 21 786                               | 1 119   |
| OTHER  | 3 123   |                          |                         | 2 033  | 261   | 1 772  |   | 67 866                               |         |
| TOTAL-STROME                                 | 3 941   |                          |                         | 2 616  | 279   | 2 337  |   | 89 652                               |         |
| <b>STRY 058-13W4</b>                         |   |                          |                         |  |   |  |   |                                      |         |
| VIKING A                                     | 483   | 0.80                     | 0.05                    | 367  | 3   | 364  | 37  | 13 352                               | 9 068   |
| UPPER MANNVILLE A                            | 1 073   | 0.70                     | 0.05                    | 714  | 199   | 515  | 37  | 19 276                               | 3 200   |
| OTHER  | 1 758   |                          |                         | 1 229  | 306   | 923  |   | 34 488                               |         |
| TOTAL-STRY                                   | 3 314   |                          |                         | 2 310  | 508   | 1 802  |   | 67 116                               |         |
| <b>STURGEON LAKE 071-23W5</b>                |   |                          |                         |  |   |  |   |                                      |         |
| TOTAL-STURGEON LAKE                          | 1 913   |                          |                         | 537  | 55  | 482  |   | 18 464                               |         |
| <b>STURGEON LAKE SOUTH 069-22W5</b>          |   |                          |                         |  |   |  |   |                                      |         |
| GETHING C                                    | 216   | 0.75                     | 0.10                    | 145  |   |  | 37  |                                      | 200     |
| GETHING D                                    | 290   | 0.85                     | 0.10                    | 221  |   |  | 37  |                                      | 200     |
| GETHING C & D TOTAL                          | 506   | 0.80                     | 0.10                    | 366  | 17  | 349  | 37  | 13 063                               |         |
| D-3 SOLN                                     | 8 290   | 0.55                     | 0.45                    | 2 510  | 1 871   | 639  | 40  | 25 835                               |         |
| OTHER  | 2 140   |                          |                         | 1 151  | 120   | 1 031  |   | 40 540                               |         |
| TOTAL-STURGEON LAKE SOUTH                    | 10 936  |                          |                         | 4 027  | 2 008   | 2 019  |   | 79 438                               |         |
| <b>SUFFIELD 018-06W4</b>                     |   |                          |                         |  |   |  |   |                                      |         |
| MILK RIVER A                                 | 31 113  | 0.70                     | 0.05                    | 20 690   |   |  | 36 <sup>a</sup>                             |                                      | 246 312 |
| MEDICINE HAT A                               | 16 495  | 0.70                     | 0.03                    | 11 200   |   |  | 36 <sup>a</sup>                             |                                      | 224 190 |
| MEDICINE HAT C                               | 1 274   | 0.50                     | 0.03                    | 618  |   |  | 36 <sup>a</sup>                             |                                      | 45 081  |
| MEDICINE HAT D                               | 2 062   | 0.50                     | 0.03                    | 1 000  |   |  | 36 <sup>a</sup>                             |                                      | 46 906  |
| SE ALTA GAS SYS(MU) TOTAL                    | 50 944  | 0.70                     | 0.05                    | 33 508   | 9 612   | 23 896   | 36 <sup>a</sup>                             | 867 664                              |         |
| SECOND WHITE SPECKS A                        | 15 719  | 0.75                     | 0.05                    | 11 200   | 2 516   | 8 684  | 36  | 315 316                              | 150 856 |
| BOW ISLAND N                                 | 668   | 0.80                     | 0.05                    | 508  | 258   | 250  | 36  | 9 078                                | 2 221   |
| BOW ISLAND C                                 | 409   | 0.80                     | 0.05                    | 313  | 4   | 309  | 36  | 11 220                               | 1 838   |
| UPPER MANNVILLE A ASSOC                      | 859   | 0.85                     | 0.05                    | 696  |   |  | 41  |                                      | 1 267   |
| UPPER MANNVILLE A ASSOC                      | 40  | 0.75                     | 0.05                    | 28   |   |  | 41  |                                      | 200     |
| UPPER MANNVILLE A TOTAL                      | 899   | 0.85                     | 0.05                    | 724  | 154   | 570  | 41  | 23 473                               |         |
| UPPER MANNVILLE I                            | 1 187   | 0.65                     | 0.05                    | 733  | 529   | 204  | 41  | 8 401                                | 400     |
| OTHER  | 3 476   |                          |                         | 2 477  | 503   | 1 974  |   | 76 986                               |         |
| TOTAL-SUFFIELD                               | 73 302  |                          |                         | 49 463   | 13 576  | 35 887   |   | 1 312 138                            |         |
| <b>SUGDEN 062-10W4</b>                       |   |                          |                         |  |   |  |   |                                      |         |
| VIKING A                                     | 6 769   | 0.65                     | 0.05                    | 4 180  | 9   | 4 171  | 37  | 152 992                              | 98 687  |
| COLONY D                                     | 627   | 0.75                     | 0.05                    | 447  | 176   | 271  | 37  | 10 144                               | 3 014   |
| COLONY S                                     | 619   | 0.60                     | 0.05                    | 352  | 65  | 287  | 37  | 10 742                               | 1 813   |
| GRAND RAPIDS A                               | 485   | 0.80                     | 0.05                    | 369  |   |  | 37  |                                      | 4 880   |
| GRAND RAPIDS D                               | 47  | 0.65                     | 0.05                    | 29   |   |  | 37  |                                      | 200     |
| GRAND RAPIDS A & D TOTAL                     | 532   | 0.80                     | 0.05                    | 398  | 54  | 344  | 37  | 12 876                               |         |
| OTHER  | 5 660   |                          |                         | 3 577  | 1 011   | 2 566  |   | 96 023                               |         |
| TOTAL-SUGDEN                                 | 14 207  |                          |                         | 8 954  | 1 315   | 7 639  |   | 282 777                              |         |
| <b>SULLIVAN LAKE 035-13W4</b>                |   |                          |                         |  |   |  |   |                                      |         |
| BELLY RIVER A                                | 646   | 0.75                     | 0.05                    | 461  |   |  | 38  |                                      | 2 388   |
| BELLY RIVER B                                | 48  | 0.70                     | 0.05                    | 32   |   |  | 38  |                                      | 553     |
| BELLY RIVER A & B TOTAL                      | 694   | 0.75                     | 0.05                    | 493  | 323   | 170  | 38  | 6 491                                |         |
| VIKING A                                     | 284   | 0.70                     | 0.05                    | 189  |   |  | 39  |                                      | 3 963   |
| VIKING B                                     | 199   | 0.70                     | 0.05                    | 132  |   |  | 39  |                                      | 2 268   |
| VIKING C                                     | 39  | 0.70                     | 0.05                    | 26   |   |  | 39  |                                      | 1 305   |
| VIKING F                                     | 45  | 0.70                     | 0.05                    | 30   |   |  | 39  |                                      | 1 727   |
| VIKING A, B, C & F TOTAL                     | 567   | 0.70                     | 0.05                    | 377  | 148   | 229  | 39  | 8 915                                |         |
| OTHER  | 879   |                          |                         | 588  | 53  | 535  |   | 20 881                               |         |
| TOTAL-SULLIVAN LAKE                          | 2 140   |                          |                         | 1 458  | 524   | 934  |   | 36 287                               |         |



| 10                                   | 11  | 12                                   | 13  | 14                         | 15  | 16                                   | 17  | 18   | 19   | 20  |
|--------------------------------------|---|--------------------------------------|---|----------------------------|---|--------------------------------------|---|--|--|---|
| AVERAGE<br>PAY<br>THICKNESS          | POROSITY                                  | GAS<br>SATN                          | INITIAL<br>PRESSURE                         | TEMP                       | FORMALIN                                  | RAW GAS<br>RELATIVE<br>DENSITY       | MEAN<br>FORMATION<br>DEPTH                | WELL<br>YEAR                                 | DATE<br>REVISED                              | DESCRIPTION AND REMARKS   |
| m                                    | frac                                      | frac                                 | kPa   | °C                         | frac                                      | frac                                 | m   |  |  |   |
| 3.53<br>8.63<br>16.00                | 0.228<br>0.230<br>0.210                   | 0.60<br>0.70<br>0.70                 | 3 190<br>3 150<br>3 070                     | 36<br>30<br>25             | 0.946<br>0.949<br>0.944                   | 0.60<br>0.57<br>0.58                 | 895.7<br>894.6<br>829.7                   | 1962<br>1976<br>1975                         | 1984<br>1985<br>1981                         | CWNG CANNUL PRODUCTION DECLINE<br>CWNG CANNUL MATERIAL BALANCE<br>CWNGNUL PRODUCTION DECLINE  |
| 6.00                                 | 0.240                                     | 0.74                                 | 7 170                                       | 44                         | 0.887                                     | 0.63                                 | 1 043.3                                   | 1980   | 1983   | A6S TCPL  |
| 0.96<br>4.00                         | 0.250<br>0.330                            | 0.50<br>0.60                         | 4 190<br>4 030                              | 18<br>21                   | 0.927<br>0.921                            | 0.59<br>0.57                         | 480.1<br>614.2                            | 1949<br>1970                                 | 1980<br>1981                                 | MIP PANALTA TCPL PART OF VIK POOL NO 6<br>MIP TCPL  |
| 4.94<br>6.79                         | 0.200<br>0.200                            | 0.80<br>0.80                         | 13 100<br>13 100                            | 52<br>55                   | 0.840<br>0.850                            | 0.60<br>0.60                         | 1 435.6<br>1 455.1                        | 1964<br>1964<br>1964<br>1953                 | 1982<br>1982<br>1982<br>1976                 | TCPL<br>A6S   |
| 4.99<br>1.70<br>0.72<br>1.12         | 0.154<br>0.170<br>0.139<br>0.139          | 0.55<br>0.55<br>0.60<br>0.60         | 3 140<br>4 310<br>4 450<br>4 450            | 16<br>17<br>30<br>19       | 0.938<br>0.913<br>0.921<br>0.921          | 0.58<br>0.57<br>0.57<br>0.57         | 355.7<br>487.7<br>487.7<br>487.7          | 1910<br>1904<br>1973<br>1973                 | 1983<br>1982<br>1985<br>1982                 | PART OF MILK RIV POOL NO.1 PRODUCTION<br>DECLINE<br>PART OF MED HAT POOL NO.1<br>PART OF MED HAT POOL NO.3<br>PART OF MED HAT POOL NO.4 |
| 1.34<br>2.33<br>1.84<br>3.57<br>1.22 | 0.216<br>0.263<br>0.234<br>0.240<br>0.240 | 0.60<br>0.60<br>0.70<br>0.70<br>0.60 | 5 690<br>7 550<br>6 890<br>10 240<br>10 180 | 27<br>27<br>27<br>30<br>31 | 0.899<br>0.875<br>0.885<br>0.850<br>0.845 | 0.57<br>0.60<br>0.63<br>0.58<br>0.62 | 630.0<br>817.6<br>718.1<br>940.9<br>927.8 | 1939<br>1970<br>1955<br>1976<br>1976         | 1982<br>1983<br>1978<br>1984<br>1984         | CWNGNUL PANALTA TCPL<br>LOC U CWNGNUL PANALTA TCPL PART OF 2nd<br>POOL NO.1<br>PANALTA TCPL<br>TCPL PART OF BOW ISL POOL NO.1           |
| 7.20                                 | 0.220                                     | 0.75                                 | 10 520                                      | 33                         | 0.846                                     | 0.60                                 | 985.4                                     | 1974   | 1985   | ASSIGNED WELL 04-02-020-07 W4M<br>PANALTA CONCURRENT PRODUCTION<br>PANALTA MATERIAL BALANCE   |
| 1.46<br>3.44<br>5.07<br>2.12<br>3.96 | 0.270<br>0.300<br>0.296<br>0.300<br>0.300 | 0.55<br>0.75<br>0.75<br>0.60<br>0.75 | 8 040<br>2 550<br>2 930<br>2 540<br>2 590   | 18<br>13<br>19<br>19<br>18 | 0.939<br>0.943<br>0.941<br>0.949<br>0.952 | 0.57<br>0.57<br>0.57<br>0.58<br>0.57 | 319.0<br>315.1<br>378.3<br>339.5<br>320.3 | 1949<br>1973<br>1978<br>1971<br>1977<br>1971 | 1984<br>1982<br>1985<br>1985<br>1983<br>1983 | CWNGNUL KANNGAZ MIP PANALTA PWGE PROGAS<br>TCPL PART OF VIK POOL NO.6<br>MIP PANALTA<br>PANALTA<br>PANALTA PWGE PROGAS TCPL             |
| 4.36<br>1.99                         | 0.346<br>0.270                            | 0.55<br>0.50                         | 3 100<br>3 050                              | 16<br>16                   | 0.936<br>0.937                            | 0.56<br>0.56                         | 438.0<br>421.9                            | 1957<br>1976                                 | 1985<br>1979                                 | TCPL  |
| 0.89<br>1.02<br>0.51<br>0.47         | 0.232<br>0.224<br>0.188<br>0.173          | 0.55<br>0.60<br>0.50<br>0.50         | 6 000<br>6 100<br>5 990<br>6 070            | 30<br>33<br>33<br>31       | 0.893<br>0.886<br>0.888<br>0.883          | 0.59<br>0.62<br>0.61<br>0.62         | 966.1<br>966.3<br>960.3<br>963.4          | 1967<br>1967<br>1967<br>1967                 | 1985<br>1985<br>1985<br>1985                 | TCPL  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>SUNBURST (SA) 001-18W4</b>                |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SUNBURST                               | 8   |                          |                         | 4  |   | 4  |   | 153                                  |       |
| <b>SUNCHILD 043-11W5</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| ELKTON-SHUNDA A                              | 208   | 0.75                     | 0.10                    | 141  |   |  | 41  |                                      | 1 259 |
| ELKTON-SHUNDA A                              | 1 386   | 0.85                     | 0.10                    | 1 060  |   |  | 41  |                                      | 3 077 |
| ELKTON-SHUNDA A                              | 552   | 0.85                     | 0.10                    | 423  |   |  | 41  |                                      | 1 373 |
| ELKTON-SHUNDA A TOTAL                        | 2 146   | 0.85                     | 0.10                    | 1 624  | 156   | 1 468  | 41  | 59 894                               |       |
| TOTAL-SUNCHILD                               | 2 146   |                          |                         | 1 624  | 156   | 1 468  |   | 59 894                               |       |
| <b>SUNDANCE 054-21W5</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| VIKING A                                     | 1 645   | 0.90                     | 0.05                    | 1 410  | 829   | 581  | 43  | 24 791                               | 1 281 |
| OTHER  | 417   |                          |                         | 288  | 24  | 264  |   | 10 023                               |       |
| TOTAL-SUNDANCE                               | 2 062   |                          |                         | 1 698  | 853   | 845  |   | 34 814                               |       |
| <b>SUNDRE 034-05W5</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| RUNDLE A SOLN                                | 1 938   | 0.40                     | 0.50                    | 388  | 408   | 20   | 40a   | 794                                  |       |
| RUNDLE A ASSOC                               | 589   | 0.85                     | 0.15                    | 425  | -62   | 487  | 40a   | 19 324                               | 673   |
| OTHER  | 1 022   |                          |                         | 357  | 258   | 99   |   | 4 218                                |       |
| TOTAL-SUNDRE                                 | 3 549   |                          |                         | 1 170  | 604   | 566  |   | 22 748                               |       |
| <b>SUNNYNOOK 026-11W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SUNNYNOOK                              | 1 092   |                          |                         | 778  | 163   | 615  |   | 23 463                               |       |
| <b>SUNSET 069-19W5</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SUNSET                                 | 125   |                          |                         | 89   |   | 89   |   | 3 398                                |       |
| <b>SUPERBA 026-03W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SUPERBA                                | 459   |                          |                         | 311  | 35  | 276  |   | 11 217                               |       |
| <b>SURMONT (SA) 084-06W4</b>                 |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SURMONT                                | 20  |                          |                         | 10   |   | 10   |   | 378                                  |       |
| <b>SURRETTE (SA) 097-16W5</b>                |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SURRETTE                               | 524   |                          |                         | 311  |   | 311  |   | 11 942                               |       |
| <b>SUTTON 091-03W6</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| GETHING 092-03                               | 681   | 0.80                     | 0.05                    | 518  |   | 518  | 39  | 20 357                               | 2 162 |
| OTHER  | 300   |                          |                         | 181  |   | 181  |   | 7 114                                |       |
| TOTAL-SUTTON                                 | 981   |                          |                         | 699  |   | 699  |   | 27 471                               |       |
| <b>SWALWELL 029-24W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| VIKING A                                     | 912   | 0.80                     | 0.10                    | 657  | 590   | 67   | 37  | 2 508                                | 4 644 |
| PEKISKO A SOLN                               | 120   | 0.60                     | 0.10                    | 65b  |   |  | 41  |                                      |       |
| PEKISKO A ASSOC                              | 948   | 0.90                     | 0.10                    | 768b   | 261b  | 572  | 41  | 23 555                               | 1 992 |
| OTHER  | 1 643   |                          |                         | 930  | 139   | 791  |   | 31 754                               |       |
| TOTAL-SWALWELL                               | 3 623   |                          |                         | 2 420  | 990   | 1 430  |   | 57 817                               |       |
| <b>SWAN HILLS 068-10W5</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| BEAVERHILL LAKE C SOLN                       | 7 600   | 0.40                     | 0.65                    | 1 064  | 71  | 993  | 45a   | 44 606                               |       |
| BEAVERHILL LAKE A&B ASSOC                    |   | 0.75                     | 0.35                    |  |   |  | 45a   |                                      |       |
| BEAVERHILL LAKE A&B SOLN                     | 30 400  | 0.45                     | 0.35                    | 8 892  |   |  | 45a   |                                      |       |
| BEAVERHILL LAKE A&B TOTAL                    | 30 400  | 0.45                     | 0.35                    | 8 892  | 5 887   | 3 005  | 45a   | 134 985                              |       |
| OTHER  | 139   |                          |                         | 96   |   | 96   |   | 3 706                                |       |
| TOTAL-SWAN HILLS                             | 38 139  |                          |                         | 10 052   | 5 958   | 4 094  |   | 183 297                              |       |
| <b>SWAN HILLS SOUTH 065-10W5</b>             |   |                          |                         |  |   |  |   |                                      |       |
| BEAVERHILL LAKE A&B ASSOC                    |   | 0.65                     | 0.25                    |  |   |  | 42a   |                                      |       |
| BEAVERHILL LAKE A&B SOLN                     | 16 272  | 0.65                     | 0.35                    | 6 875b   |   |  | 42a   |                                      |       |
| BEAVERHILL LAKE A&B TOTAL                    | 16 272  | 0.65                     | 0.35                    | 6 875b   | 4 234b  | 2 641  | 42a   | 110 711                              |       |
| OTHER  | 51  |                          |                         | 34   |   | 34   |   | 1 273                                |       |
| TOTAL-SWAN HILLS SOUTH                       | 16 323  |                          |                         | 6 909  | 4 234   | 2 675  |   | 111 984                              |       |
| <b>SWEETGRASS 001-15W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SWEETGRASS                             | 63  |                          |                         | 45   | 14  | 31   |   | 1 291                                |       |
| <b>SWIMMING 052-06W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-SWIMMING                               | 802   |                          |                         | 557  | 9   | 548  |   | 20 778                               |       |
| <b>SYLVAN LAKE 037-03W5</b>                  |   |                          |                         |  |   |  |   |                                      |       |
| VIKING A ASSOC                               | 133   | 0.75                     | 0.10                    | 90b  |   |  | 38a   |                                      | 1 290 |
| VIKING A SOLN                                | 275   | 0.65                     | 0.20                    | 143b   |   |  | 38a   |                                      |       |
| VIKING S SOLN                                | 241   | 0.65                     | 0.15                    | 133b   |   |  | 38  |                                      |       |



| 10                          | 11       | 12          | 13                  | 14   | 15        | 16                             | 17                         | 18           | 19           | 20                             |
|-----------------------------|----------|-------------|---------------------|------|-----------|--------------------------------|----------------------------|--------------|--------------|--------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | (MINUTES) | NEW LAB<br>RELATIVE<br>DENSITY | MOAN<br>FORMATION<br>DEPTH | DATE<br>TEST | DATE<br>TEST | DESCRIPTION AND REMARKS        |
| m                           | frac     | frac        | kPa                 | sec  | frac      | frac                           | m                          |              |              |                                |
| 1.07                        | 0.090    | 0.85        | 26 100              | 119  | 0.947     | 0.68                           | 2 922.1                    | 1969         | 1977         |                                |
| 2.90                        | 0.090    | 0.85        | 26 100              | 109  | 0.933     | 0.64                           | 2 936.3                    | 1969         | 1980         |                                |
| 1.95                        | 0.120    | 0.85        | 26 100              | 110  | 0.953     | 0.65                           | 2 922.4                    | 1969         | 1977         |                                |
|                             |          |             |                     |      |           |                                |                            | 1969         | 1980         | PROGAS TCPL                    |
| 4.33                        | 0.148    | 0.80        | 30 410              | 91   | 0.948     | 0.71                           | 2 731.0                    | 1971         | 1975         | PANALTA                        |
| 4.79                        | 0.102    | 0.82        | 25 290              | 95   | 0.895     | 0.71                           | 2 754.8                    | 1955         | 1982         | A&S<br>A&S                     |
|                             |          |             |                     |      |           |                                |                            | 1955         | 1982         |                                |
| 5.73                        | 0.213    | 0.45        | 5 640               | 35   | 0.908     | 0.57                           | 772.6                      | 1972         | 1982         | PANALTA                        |
| 1.94                        | 0.154    | 0.55        | 8 070               | 39   | 0.843     | 0.65                           | 1 400.9                    | 1963         | 1984         | A&S TCPL PRODUCTION DECLINE    |
| 7.27                        | 0.088    | 0.70        | 10 550              | 60   | 0.848     | 0.66                           | 1 630.2                    | 1963         | 1984         | A&S TCPL CONCURRENT PRODUCTION |
|                             |          |             |                     |      |           |                                |                            | 1963         | 1984         | A&S TCPL CONCURRENT PRODUCTION |
|                             |          |             |                     |      |           |                                |                            | 1959         | 1980         | CWNGNUL PANALTA                |
|                             |          |             |                     |      |           |                                |                            | 1957         | 1984         |                                |
|                             |          |             |                     |      |           |                                |                            | 1957         | 1984         | CWNGNUL                        |
|                             |          |             |                     |      |           |                                |                            | 1957         | 1984         |                                |
|                             |          |             |                     |      |           |                                |                            | 1959         | 1984         | DRY GAS BREAKTHROUGH           |
|                             |          |             |                     |      |           |                                |                            | 1959         | 1984         | DRY GAS BREAKTHROUGH           |
|                             |          |             |                     |      |           |                                |                            | 1959         | 1984         | DRY GAS BREAKTHROUGH           |
| 0.76                        | 0.120    | 0.70        | 15 170              | 60   | 0.800     | 0.68                           | 1 909.3                    | 1962         | 1983         | A&S TCPL CONCURRENT PRODUCTION |
|                             |          |             |                     |      |           | 0.68                           |                            | 1962         | 1983         | A&S TCPL CONCURRENT PRODUCTION |
|                             |          |             |                     |      |           |                                |                            | 1965         | 1985         |                                |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>SYLVAN LAKE 037-03W5<br/>(CONTINUED)</b>  |   |                          |                         |  |   |  |   |                                      |       |
| VIKING A & S TOTAL                           | 649   | 0.65                     | 0.15                    | 366b   | 191b  | 175  | 38a   | 6 617                                |       |
| GLAUC A & SHUNDA A                           |   | 0.85                     | 0.10                    |  |   |  | 41a   |                                      | 3 731 |
| LOWER MANNVILLE D                            |   | 0.85                     | 0.10                    |  |   |  | 41a   |                                      | 200   |
| GLAUC A, SHUN A&L MN D TOTAL                 | 8 000   | 0.85                     | 0.10                    | 6 120  | 4 721   | 1 399  | 41a   | 57 611                               |       |
| LOWER MANNVILLE A                            | 1 474   | 0.85                     | 0.09                    | 1 140  | 788   | 352  | 41a   | 14 495                               | 1 144 |
| LOWER MANNVILLE C                            | 1 333   | 0.90                     | 0.10                    | 1 090  | 845   | 245  | 41a   | 10 089                               | 915   |
| LOWER MANNVILLE D                            | 367   | 0.90                     | 0.06                    | 310  | 127   | 183  | 41a   | 7 536                                | 354   |
| LOWER MANNVILLE H                            | 850   | 0.85                     | 0.10                    | 651  | 208   | 443  | 41a   | 18 243                               | 581   |
| OSTRACOD 24-037-05                           | 423   | 0.85                     | 0.10                    | 324  |   | 324  | 42  | 13 582                               | 440   |
| OSTRACOD K                                   | 1 235   | 0.80                     | 0.15                    | 840  | 158   | 682  | 43  | 29 360                               | 4 388 |
| OSTRACOD B                                   | 1 065   | 0.90                     | 0.12                    | 844  |   |  | 41a   |                                      | 1 067 |
| BASAL QUARTZ A SOLN                          | 47  | 0.75                     | 0.10                    | 32   |   |  | 37a   |                                      |       |
| OSTRACOD B&BSL QTZ A TOTAL                   | 1 112   | 0.90                     | 0.10                    | 876  | 309   | 567  | 37  | 21 222                               |       |
| JURASSIC A ASSOC                             | 1 293   | 0.90                     | 0.10                    | 1 050  |   | 1 050  | 38a   | 40 089                               | 1 220 |
| JURASSIC L                                   | 635   | 0.60                     | 0.15                    | 324  | 39  | 285  | 38a   | 10 881                               | 659   |
| ELKTON-SHUNDA A                              | 1 465   | 0.90                     | 0.10                    | 1 190  | 1 126   | 64   | 41a   | 2 636                                | 1 416 |
| ELKTON-SHUNDA B                              | 1 150   | 0.85                     | 0.10                    | 880  | 688   | 192  | 41a   | 7 907                                | 829   |
| SHUNDA B                                     | 687   | 0.90                     | 0.15                    | 527  |   | 527  | 41a   | 21 702                               | 852   |
| PEKISKO B SOLN                               | 731   | 0.60                     | 0.20                    | 351  | 265   | 86   | 41a   | 3 541                                |       |
| PEKISKO B ASSOC                              | 521   | 0.90                     | 0.15                    | 397  |   | 397  | 41a   | 16 348                               | 512   |
| PEKISKO N                                    | 1 350   | 0.85                     | 0.05                    | 1 090  | 754   | 336  | 41a   | 13 836                               | 690   |
| D-3 A SOLN                                   | 425   | 0.65                     | 0.45                    | 152b   |   |  | 38a   |                                      |       |
| D-3 A ASSOC                                  | 1 138   | 0.90                     | 0.11                    | 913b   | 296b  | 769  | 38a   | 29 360                               | 728   |
| OTHER  | 11 533  |                          |                         | 7 261  | 1 061   | 6 200  |   | 248 326                              |       |
| TOTAL-SYLVAN LAKE                            | 36 371  |                          |                         | 25 852   | 11 576  | 14 276   |   | 573 381                              |       |
| <b>TABER 009-17W4</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TABER                                  | 998   |                          |                         | 639  | 38  | 601  |   | 22 878                               |       |
| <b>TABER NORTH 007-17W4</b>                  |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TABER NORTH                            | 219   |                          |                         | 116  | 6   | 110  |   | 4 118                                |       |
| <b>TABER SOUTH 007-16W4</b>                  |   |                          |                         |  |   |  |   |                                      |       |
| BOW ISLAND A                                 | 875   | 0.90                     | 0.05                    | 748  | 187   | 561  | 37  | 20 998                               | 8 774 |
| OTHER  | 164   |                          |                         | 122  | 87  | 35   |   | 1 310                                |       |
| TOTAL-TABER SOUTH                            | 1 039   |                          |                         | 870  | 274   | 596  |   | 22 308                               |       |
| <b>TANGENT 080-24W5</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TANGENT                                | 2 871   |                          |                         | 1 872  | 222   | 1 650  |   | 62 203                               |       |
| <b>TAR (SA) 099-13W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TAR                                    | 53  |                          |                         | 33   |   | 33   |   | 1 235                                |       |
| <b>TARA (SA) 076-20W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TARA                                   | 10  |                          |                         | 6  |   | 6  |   | 222                                  |       |
| <b>TATE (SA) 120-03W6</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TATE                                   | 75  |                          |                         | 48   |   | 48   |   | 1 977                                |       |
| <b>TAWATINAW 062-22W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TAWATINAW                              | 55  |                          |                         | 40   | 22  | 18   |   | 674                                  |       |
| <b>TEEPEE 073-03W6</b>                       |   |                          |                         |  |   |  |   |                                      |       |
| DOIG A                                       | 897   | 0.70                     | 0.10                    | 565  | 16  | 549  | 39  | 21 169                               | 1 568 |
| KISKATINAW D2-074-04                         | 411   | 0.85                     | 0.10                    | 316  |   | 316  | 37  | 11 828                               | 440   |
| WABAMUN C                                    | 2 464   | 0.85                     | 0.15                    | 1 780  | 312   | 1 468  | 37  | 54 947                               | 1 275 |
| OTHER  | 700   |                          |                         | 505  | 116   | 389  |   | 14 831                               |       |
| TOTAL-TEEPEE                                 | 4 472   |                          |                         | 3 166  | 444   | 2 722  |   | 102 775                              |       |
| <b>TELFORDVILLE (SA) 050-02W5</b>            |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TELFORDVILLE                           | 352   |                          |                         | 241  |   | 241  |   | 9 937                                |       |
| <b>TEMPLETON 001-12W4</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-TEMPLETON                              | 152   |                          |                         | 101  |   | 101  |   | 3 657                                |       |
| <b>THERIEN 060-09W4</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| UPPER MANNVILLE F                            | 657   | 0.75                     | 0.05                    | 468  | 11  | 457  | 37  | 17 106                               | 2 101 |
| OTHER  | 2 251   |                          |                         | 1 407  | 128   | 1 279  |   | 47 631                               |       |
| TOTAL-THERIEN                                | 2 908   |                          |                         | 1 875  | 139   | 1 736  |   | 64 737                               |       |



| 10                          | 11       | 12          | 13                  | 14   | 15        | 16                             | 17                         | 18          | 19                       | 20                                 |
|-----------------------------|----------|-------------|---------------------|------|-----------|--------------------------------|----------------------------|-------------|--------------------------|------------------------------------|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TEMP | (CONCENT) | RAW 228<br>RELATIVE<br>DENSITY | SEAN<br>FORMATION<br>DEPTH | AGE<br>YEAR | DATE<br>LAST<br>REVIEWED | DISPOSITION AND REMARKS            |
| m                           | Frac     | Frac        | kPa                 | OC   | Frac      | Frac                           | m                          |             |                          |                                    |
| 9.36                        | 0.132    | 0.70        | 16 780              | 70   | 0.804     | 0.72                           | 2 119.0                    | 1962        | 1985                     | CONCURRENT PRODUCTION              |
| 3.66                        | 0.120    | 0.75        | 8 550               | 64   | 0.839     | 0.72                           | 2 119.3                    | 1953        | 1985                     | MATERIAL BALANCE                   |
|                             |          |             |                     |      |           |                                |                            | 1976        | 1985                     | MATERIAL BALANCE                   |
| 5.39                        | 0.129    | 0.70        | 16 900              | 66   | 0.812     | 0.70                           | 2 119.9                    | 1955        | 1985                     | A65 TCPL                           |
| 3.90                        | 0.133    | 0.70        | 16 920              | 66   | 0.800     | 0.71                           | 2 190.3                    | 1955        | 1985                     | A65 TCPL PRODUCTION DECLINE        |
| 4.24                        | 0.129    | 0.70        | 16 620              | 63   | 0.748     | 0.67                           | 2 119.2                    | 1960        | 1981                     | A65 TCPL PRODUCTION DECLINE        |
| 7.08                        | 0.130    | 0.90        | 16 830              | 64   | 0.804     | 0.69                           | 2 113.0                    | 1973        | 1979                     | A65 TCPL MATERIAL BALANCE          |
| 4.40                        | 0.143    | 0.80        | 18 690              | 65   | 0.823     | 0.67                           | 2 386.3                    | 1980        | 1983                     | A65 PROGAS TCPL                    |
| 1.69                        | 0.125    | 0.70        | 18 300              | 70   | 0.797     | 0.74                           | 2 350.8                    | 1969        | 1985                     | PROGAS TCPL                        |
| 4.16                        | 0.170    | 0.70        | 20 340              | 71   | 0.834     | 0.68                           | 2 384.9                    | 1963        | 1985                     |                                    |
|                             |          |             |                     |      |           |                                |                            | 1964        | 1973                     |                                    |
| 6.28                        | 0.140    | 0.70        | 17 230              | 71   | 0.825     | 0.69                           | 2 259.5                    | 1963        | 1985                     | TCPL                               |
| 5.21                        | 0.150    | 0.70        | 16 790              | 66   | 0.800     | 0.72                           | 2 188.3                    | 1960        | 1973                     | A65 TCPL                           |
| 5.97                        | 0.071    | 0.75        | 16 720              | 66   | 0.804     | 0.70                           | 2 167.7                    | 1955        | 1985                     | A65 TCPL PROGAS                    |
| 12.58                       | 0.134    | 0.75        | 17 030              | 71   | 0.801     | 0.73                           | 2 146.7                    | 1955        | 1982                     | A65 TCPL MATERIAL BALANCE          |
| 6.43                        | 0.095    | 0.75        | 16 890              | 66   | 0.805     | 0.70                           | 2 189.7                    | 1953        | 1975                     | A65 MATERIAL BALANCE               |
|                             |          |             |                     |      |           |                                |                            | 1953        | 1975                     | A65 TCPL                           |
| 5.47                        | 0.138    | 0.75        | 16 960              | 66   | 0.795     | 0.71                           | 2 215.3                    | 1953        | 1976                     | A65 TCPL                           |
| 12.30                       | 0.090    | 0.80        | 17 070              | 71   | 0.813     | 0.70                           | 2 196.7                    | 1973        | 1982                     | A65 MATERIAL BALANCE               |
|                             |          |             |                     |      |           |                                |                            | 1961        | 1979                     | A65 TCPL CONCURRENT PRODUCTION OIL |
| 12.59                       | 0.072    | 0.85        | 23 920              | 99   | 0.900     | 0.70                           | 2 865.4                    | 1961        | 1979                     | DEPLETED                           |
|                             |          |             |                     |      |           |                                |                            |             |                          | A65 TCPL CONCURRENT PRODUCTION OIL |
|                             |          |             |                     |      |           |                                |                            |             |                          | DEPLETED                           |
| 1.98                        | 0.210    | 0.65        | 3 610               | 24   | 0.937     | 0.59                           | 702.4                      | 1958        | 1983                     | CWNGNUL KANNGAZ                    |
| 3.23                        | 0.129    | 0.80        | 14 920              | 44   | 0.783     | 0.66                           | 1 564.7                    | 1972        | 1982                     | TCPL                               |
| 2.78                        | 0.250    | 0.70        | 18 320              | 50   | 0.840     | 0.65                           | 1 926.0                    | 1973        | 1973                     | TCPL                               |
| 16.50                       | 0.060    | 0.80        | 29 300              | 85   | 0.954     | 0.66                           | 2 162.8                    | 1972        | 1985                     | TCPL                               |
| 5.23                        | 0.306    | 0.65        | 2 690               | 21   | 0.948     | 0.56                           | 365.2                      | 1976        | 1983                     | MIP KANNGAZA PROGAS TCPL CWNGNUL   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>THIRD (SA) 021-27W4</b><br>TOTAL-THIRD    | 245   |                          |                         | 166  |   | 166  |   | 6 524                                |        |
| <b>THORHILD 059-21W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| SECOND WHITE SPECKS A                        | 393   | 0.85                     | 0.05                    | 317  | 159   | 158  | 36  | 5 737                                | 9 911  |
| MANNVILLE H                                  | 741   | 0.80                     | 0.05                    | 563  | 23  | 540  | 37  | 20 212                               | 1 926  |
| OTHER  | 1 138   |                          |                         | 720  | 210   | 510  |   | 19 198                               |        |
| TOTAL-THORHILD                               | 2 272   |                          |                         | 1 600  | 392   | 1 208  |   | 45 147                               |        |
| <b>THORNBURY 078-13W4</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| MCMURRAY I                                   | 956   | 0.75                     | 0.05                    | 682  | 84  | 598  | 37  | 22 383                               | 1 200  |
| OTHER  | 1 440   |                          |                         | 834  | 119   | 715  |   | 26 759                               |        |
| TOTAL-THORNBURY                              | 2 396   |                          |                         | 1 516  | 203   | 1 313  |   | 49 142                               |        |
| <b>THORSBY 049-01W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| GLAUCONITIC B SOLN                           | 462   | 0.65                     | 0.35                    | 195b   |   |  | 40  |                                      |        |
| GLAUCONITIC B ASSOC                          | 368   | 0.75                     | 0.10                    | 248b   | 69b   | 374  | 40  | 14 840                               | 474    |
| GLAUCONITIC 16-049-01                        | 547   | 0.80                     | 0.10                    | 394  |   | 394  | 40  | 15 634                               | 150    |
| GLAUCONITIC 09-049-01                        | 443   | 0.85                     | 0.10                    | 339  |   | 339  | 40  | 13 452                               | 200    |
| OTHER  | 2 225   |                          |                         | 1 466  | 54  | 1 412  |   | 56 024                               |        |
| TOTAL-THORSBY                                | 3 498   |                          |                         | 2 248  | 123   | 2 125  |   | 84 316                               |        |
| <b>THREE HILLS CREEK 035-25W4</b>            |   |                          |                         |  |   |  |   |                                      |        |
| PEKISKO ASSOC                                | 5 435   | 0.70                     | 0.08                    | 3 500  | 1 887   | 1 613  | 42a   | 68 230                               | 13 344 |
| OTHER  | 721   |                          |                         | 444  | 36  | 408  |   | 15 180                               |        |
| TOTAL-THREE HILLS CREEK                      | 6 156   |                          |                         | 3 944  | 1 923   | 2 021  |   | 83 410                               |        |
| <b>THUNDER 060-06W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-THUNDER                                | 166   |                          |                         | 115  |   | 115  |   | 4 676                                |        |
| <b>TIELAND 067-04W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TIELAND                                | 47  |                          |                         | 32   |   | 32   |   | 1 186                                |        |
| <b>TIMBERWOLF 107-12W6</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TIMBERWOLF                             | 28  |                          |                         | 20   |   | 20   |   | 779                                  |        |
| <b>TIMEU 063-03W5</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TIMEU                                  | 189   |                          |                         | 127  |   | 127  |   | 5 008                                |        |
| <b>TINDASTOLL 036-01W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| PEKISKO 22-036-01                            | 451   | 0.75                     | 0.10                    | 304  |   | 304  | 41  | 12 519                               | 440    |
| OTHER  | 200   |                          |                         | 128  |   | 128  |   | 5 400                                |        |
| TOTAL-TINDASTOLL                             | 651   |                          |                         | 432  |   | 432  |   | 17 919                               |        |
| <b>TODD (SA) 009-02W5</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TODD                                   | 108   |                          |                         | 64   |   | 64   |   | 2 395                                |        |
| <b>TOFIELD 050-19W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TOFIELD                                | 603   |                          |                         | 398  | 28  | 370  |   | 13 819                               |        |
| <b>TOLSTAD (SA) 069-04W6</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TOLSTAD                                | 263   |                          |                         | 188  |   | 188  |   | 7 232                                |        |
| <b>TOMAHAWK 052-05W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TOMAHAWK                               | 38  |                          |                         | 26   |   | 26   |   | 1 100                                |        |
| <b>TOMATO 072-23W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TOMATO                                 | 397   |                          |                         | 235  | 81  | 154  |   | 5 722                                |        |
| <b>TONY CREEK NORTH 064-21W5</b>             |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TONY CREEK NORTH                       | 797   |                          |                         | 535  | 23  | 512  |   | 19 234                               |        |
| <b>TORRINGTON 032-27W4</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TORRINGTON                             | 16  |                          |                         | 9  |   | 9  |   | 337                                  |        |
| <b>TOUCHWOOD (SA) 068-09W4</b>               |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TOUCHWOOD                              | 12  |                          |                         | 8  |   | 8  |   | 299                                  |        |
| <b>TRACY (SA) 095-12W6</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-TRACY                                  | 20  |                          |                         | 10   |   | 10   |   | 393                                  |        |



| 10                          | 11                      | 12                   | 13                         | 14             | 15                      | 16                             | 17                            | 18                           | 19                           | 20   |
|-----------------------------|-------------------------|----------------------|----------------------------|----------------|-------------------------|--------------------------------|-------------------------------|------------------------------|------------------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY                | GAS<br>SATN          | INITIAL<br>PRESSURE        | TEMP           | LIQUIDNESS              | NEW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH    | WELL<br>YEAR                 | DATE<br>LAST<br>REVISED      | DESCRIPTION AND REMARKS  |
| m                           | frac                    | frac                 | kPa                        | °C             | frac                    | frac                           | m                             |                              |                              |  |
| 0.96<br>3.90                | 0.200<br>0.280          | 0.50<br>0.60         | 3 850<br>5 550             | 16<br>25       | 0.920<br>0.901          | 0.56<br>0.57                   | 480.4<br>747.1                | 1964<br>1964                 | 1982<br>1977                 | TEPL PANALTA<br>TEPL   |
| 11.93                       | 0.316                   | 0.55                 | 1 940                      | 20             | 0.958                   | 0.56                           | 464.3                         | 1984                         | 1985                         |  |
| 6.57<br>24.00<br>16.19      | 0.125<br>0.140<br>0.123 | 0.70<br>0.75<br>0.75 | 11 880<br>12 580<br>12 700 | 45<br>45<br>45 | 0.787<br>0.777<br>0.765 | 0.69<br>0.69<br>0.70           | 1 443.0<br>1 462.5<br>1 467.3 | 1973<br>1973<br>1985<br>1982 | 1984<br>1984<br>1985<br>1983 | CWNGNUL SLEP140 CONCURRENT PRODUCTION<br>CWNGNUL SLEP140 CONCURRENT PRODUCTION |
| 9.75                        | 0.054                   | 0.65                 | 11 840                     | 70             | 0.826                   | 0.73                           | 1 757.5                       | 1953                         | 1984                         | PANALTA PROBAS TEPL MATERIAL BALANCE<br>CONCURRENT PRODUCTION OIL OVERLIED     |
| 8.02                        | 0.097                   | 0.75                 | 16 550                     | 63             | 0.798                   | 0.70                           | 2 070.8                       | 1970                         | 1983                         |  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE   | 1  | 2  | 3  | 4  | 5  | 6   | 7  | 8   | 9  |
|--|--|--|--|--|--|---|--|---|--|
|  | RAW GAS  |  |  | MARKETABLE GAS   |  |   |  |   | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup>                          | POOL<br>RECOVERY<br>frac   | SURFACE<br>LOSS<br>frac  | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup>   | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup>          | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup>        | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup>                          | REMAINING<br>ENERGY<br>CONTENT<br>TJ                                  |  |
| <b>TRAP (SA) 017-04W5</b><br>TOTAL-TRAP  | 207  |  |  | 149  |  | 149   |  | 6 191   |  |
| <b>TROCHU 033-22W4</b><br>TOTAL-TROCHU   | 1 455  |  |  | 918  | 290  | 628   |  | 26 825  |  |
| <b>TURIN 010-18W4</b><br>TOTAL-TURIN   | 3 826  |  |  | 2 497  | 481  | 2 016   |  | 76 509  |  |
| <b>TURNER VALLEY 020-03W5</b><br>RUNDLE SOLN<br>RUNDLE ASSOC<br>TURNER VALLEY 33-020-03<br>OTHER<br>TOTAL-TURNER VALLEY  | 38 317<br>41 979<br>604<br>1 730<br>82 630   | 0.55<br>0.90<br>0.80<br>0.80<br>0.80   | 0.56<br>0.72<br>0.10<br>0.10<br>0.10   | 9 300<br>10 400<br>435<br>1 073<br>21 208  | 8 881<br>10 265<br>314<br>314<br>19 460                                    | 419<br>135<br>435<br>759<br>1 748   | 42 <sup>a</sup><br>42 <sup>a</sup><br>42<br>42<br>42                 | 17 409<br>5 609<br>18 074<br>30 214<br>71 306                         | 200  |
| <b>TWEEDIE 069-13W4</b><br>VIKING B<br>GRAND RAPIDS D<br>GLAUCONITIC A<br>GLAUCONITIC D<br>MCMURRAY A<br>GLAUC A,D&MCMURRAY A TOTAL<br>GLAUCONITIC B<br>MCMURRAY H<br>GLAUC B & MCMURRAY H TOTAL<br>MCMURRAY B<br>GROSMONT A<br>OTHER<br>TOTAL-TWEEDIE | 711<br>943<br>541<br>107<br>266<br>914<br>453<br>1 423<br>453<br>1 590<br>3 353<br>9 387 | 0.65<br>0.70<br>0.85<br>0.65<br>0.85<br>0.85<br>0.75<br>0.70<br>0.75<br>0.75<br>0.50<br>0.50 | 0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05 | 439<br>627<br>437<br>66<br>215<br>718<br>323<br>1 000<br>755<br>2 060<br>5 922                               | 286<br>617<br>437<br>66<br>215<br>606<br>215<br>584<br>720<br>769<br>3 797 | 153<br>10<br>135<br>435<br>759<br>1 748<br>416<br>108<br>35<br>1 291<br>2 125 | 37<br>39<br>39<br>39<br>39<br>39<br>39<br>39<br>37<br>37<br>37<br>37 | 5 727<br>389<br>16 195<br>4 204<br>1 310<br>50 019<br>82 204          | 7 201<br>7 054<br>6 579<br>2 450<br>4 590<br>8 601<br>3 649<br>1 525<br>11 154 |
| <b>TWINING 031-24W4</b><br>VIKING A<br>LOWER MANNVILLE A ASSOC<br>RUNDLE A ASSOC<br>RUNDLE A SOLN<br>RUNDLE A & L MANN A TOTAL<br>OTHER<br>TOTAL-TWINING   | 673<br>425<br>5 614<br>5 874<br>11 913<br>3 495<br>16 081                                | 0.80<br>0.90<br>0.90<br>0.65<br>0.80<br>0.80<br>0.80   | 0.10<br>0.05<br>0.05<br>0.15<br>0.10<br>0.10<br>0.10   | 484<br>363 <sup>b</sup><br>4 800 <sup>b</sup><br>3 250 <sup>b</sup><br>8 413 <sup>b</sup><br>1 978<br>10 875 | 188<br>617<br>800 <sup>b</sup><br>2 673 <sup>b</sup><br>547<br>3 408       | 296<br>42<br>42<br>42<br>5 740<br>1 431<br>7 467                              | 38<br>42<br>42<br>42<br>42<br>42<br>42                               | 11 301<br>242 802<br>57 544<br>311 647                                | 4 404<br>1 714<br>21 808   |
| <b>TWINING NORTH 033-24W4</b><br>RUNDLE SOLN<br>RUNDLE ASSOC<br>OTHER<br>TOTAL-TWINING NORTH   | 2 331<br>2 592<br>1 783<br>6 706   | 0.60<br>0.90<br>0.90<br>0.90   | 0.15<br>0.10<br>0.10<br>0.10   | 1 189 <sup>b</sup><br>2 100 <sup>b</sup><br>1 149<br>4 438   | 745 <sup>b</sup><br>68<br>813  | 2 544<br>1 081<br>3 625   | 42<br>42<br>42   | 105 703<br>42 348<br>148 051  | 5 103  |
| <b>TWO CREEK (SA) 063-16W5</b><br>TOTAL-TWO CREEK  | 99   |  |  | 62   |  | 62  |  | 2 530   |  |
| <b>UKALTA 057-17W4</b><br>COLONY F<br>WABAMUN-GRAMINIA A<br>OTHER<br>TOTAL-UKALTA  | 554<br>880<br>4 296<br>5 730   | 0.80<br>0.75<br>0.75<br>0.75   | 0.05<br>0.05<br>0.05<br>0.05   | 421<br>627<br>2 789<br>3 837   | 104<br>554<br>337<br>995   | 317<br>73<br>2 452<br>2 842   | 38<br>37 <sup>a</sup><br>42<br>42                                    | 12 103<br>2 705<br>92 814<br>107 622                                  | 2 514<br>2 833   |
| <b>UNWIN 045-02W4</b><br>TOTAL-UNWIN   | 257  |  |  | 172  |  | 172   |  | 6 438   |  |
| <b>UTIKUMA LAKE 081-09W5</b><br>KEG RIVER SAND A SOLN<br>OTHER<br>TOTAL-UTIKUMA LAKE   | 1 105<br>619<br>1 724  | 0.70<br>0.70<br>0.70   | 0.55<br>0.55<br>0.55   | 348<br>298<br>646  | 177<br>43<br>220   | 171<br>255<br>426   | 42<br>42<br>42   | 7 168<br>10 446<br>17 614   |  |
| <b>VALHALLA 075-10W6</b><br>DOE CREEK I SOLN<br>DOE CREEK A<br>CADOMIN A<br>HALFWAY A<br>HALFWAY B ASSOC<br>OTHER<br>TOTAL-VALHALLA  | 564<br>3 948<br>400<br>1 037<br>6 301<br>5 197<br>17 447                                 | 0.65<br>0.80<br>0.85<br>0.75<br>0.75<br>0.75<br>0.75   | 0.05<br>0.05<br>0.05<br>0.10<br>0.10<br>0.10<br>0.10   | 349<br>3 000<br>323<br>700<br>4 550<br>3 441<br>12 363   | 13<br>639<br>21<br>700<br>971  | 336<br>2 361<br>302<br>700<br>4 550<br>3 143<br>11 392                        | 37<br>37<br>37<br>37<br>40<br>40<br>40                               | 12 576<br>88 372<br>11 304<br>26 201<br>182 000<br>117 902<br>438 355 | 20 099<br>200<br>2 011<br>7 250  |



| 10                          | 11       | 12          | 13                  | 14   | 15           | 16                                  | 17                            | 18                   | 19                   | 20  |
|-----------------------------|----------|-------------|---------------------|------|--------------|-------------------------------------|-------------------------------|----------------------|----------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POROSITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | COMPL (DAYS) | RAW GAS<br>RELATIVE<br>PERMEABILITY | MEAN<br>FORMATION<br>PRESSURE | DATE<br>YEAR         | DATE<br>REVIEWED     | COMMENTS AND REMARKS  |
| m                           | Frac     | Frac        | MPa                 | PC   | Frac         | Frac                                | MPa                           |                      |                      |   |
| 41.00                       | 0.040    | 0.75        | 26 850              | 80   | 0.881        | 0.80<br>0.80<br>0.72                | 3 069.7                       | 1931<br>1931<br>1981 | 1974<br>1974<br>1981 | CANGUL PRODUCTION DECLINE<br>CANGUL PRODUCTION DECLINE<br>CANGUL PRODUCTION DECLINE |
| 1.10                        | 0.240    | 0.65        | 2 360               | 18   | 0.950        | 0.56                                | 234.0                         | 1949                 | 1988                 | TCPL MATERIAL BALANCE   |
| 2.28                        | 0.350    | 0.60        | 2 220               | 19   | 0.962        | 0.56                                | 280.7                         | 1961                 | 1981                 | TCPL PRODUCTION DECLINE   |
| 2.55                        | 0.255    | 0.50        | 2 480               | 21   | 0.947        | 0.57                                | 446.5                         | 1968                 | 1977                 |   |
| 1.37                        | 0.250    | 0.50        | 2 480               | 19   | 0.948        | 0.58                                | 458.4                         | 1976                 | 1977                 |   |
| 2.11                        | 0.268    | 0.40        | 2 480               | 19   | 0.948        | 0.57                                | 437.2                         | 1961                 | 1977                 |   |
| 2.10                        | 0.255    | 0.50        | 2 480               | 21   | 0.947        | 0.57                                | 429.8                         | 1961                 | 1985                 | TCPL PRODUCTION DECLINE   |
| 2.09                        | 0.268    | 0.40        | 2 480               | 19   | 0.948        | 0.57                                | 430.4                         | 1961                 | 1985                 | TCPL PRODUCTION DECLINE   |
| 1.78                        | 0.260    | 0.45        | 2 500               | 24   | 0.951        | 0.57                                | 461.4                         | 1962                 | 1985                 | TCPL PRODUCTION DECLINE   |
| 7.85                        | 0.110    | 0.40        | 2 480               | 19   | 0.948        | 0.57                                | 470.2                         | 1961                 | 1983                 | TCPL PRODUCTION DECLINE   |
| 1.53                        | 0.170    | 0.65        | 8 230               | 45   | 0.814        | 0.65                                | 1 423.1                       | 1966                 | 1984                 | A&S TCPL CONCURRENT PRODUCTION  |
| 1.65                        | 0.200    | 0.65        | 11 260              | 60   | 0.836        | 0.67                                | 1 626.1                       | 1962                 | 1977                 | CONCURRENT PRODUCTION   |
| 7.41                        | 0.055    | 0.55        | 11 410              | 63   | 0.841        | 0.67                                | 1 622.8                       | 1952                 | 1981                 | CONCURRENT PRODUCTION   |
|                             |          |             |                     |      |              | 0.67                                |                               | 1952                 | 1981                 | CONCURRENT PRODUCTION   |
|                             |          |             |                     |      |              |                                     |                               | 1952                 | 1981                 | A&S TCPL CONCURRENT PRODUCTION  |
| 9.23                        | 0.067    | 0.70        | 11 410              | 63   | 0.823        | 0.70                                | 1 640.0                       | 1961                 | 1982                 | PROGAS TCPL A&S CONCURRENT PRODUCTION   |
|                             |          |             |                     |      |              | 0.70                                |                               | 1961                 | 1982                 | PROGAS TCPL A&S CONCURRENT PRODUCTION   |
| 2.91                        | 0.281    | 0.55        | 4 530               | 19   | 0.901        | 0.61                                | 560.3                         | 1979                 | 1983                 | TCPL  |
| 10.00                       | 0.246    | 0.40        | 4 140               | 27   | 0.923        | 0.56                                | 656.0                         | 1968                 | 1985                 | TCPL PRODUCTION DECLINE   |
|                             |          |             |                     |      |              |                                     |                               | 1963                 | 1979                 | TCPL  |
| 2.27                        | 0.213    | 0.75        | 4 260               | 27   | 0.900        | 0.65                                | 686.1                         | 1977                 | 1984                 | MATERIAL BALANCE  |
| 13.70                       | 0.160    | 0.65        | 13 990              | 71   | 0.824        | 0.64                                | 1 726.8                       | 1974                 | 1985                 |   |
| 4.50                        | 0.085    | 0.70        | 21 710              | 86   | 0.893        | 0.61                                | 2 141.4                       | 1980                 | 1980                 |   |
| 3.82                        | 0.127    | 0.80        | 21 360              | 73   | 0.784        | 0.87                                | 2 028.0                       | 1973                 | 1983                 |   |
|                             |          |             |                     |      |              |                                     |                               | 1978                 | 1985                 | PART OF HALFWAY POOL NO. 1 GAS CYCLING SCHEME                                       |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE            | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9       |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|---------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA    |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |         |
| <b>VALLEYVIEW 070-21W5</b><br>TOTAL-VALLEYVIEW          | 118   |                          |                         | 82   |   | 82   |   | 3 069                                |         |
| <b>VARDIE (SA) 115-08W6</b><br>TOTAL-VARDIE             | 467   |                          |                         | 322  |   | 322  |   | 12 620                               |         |
| <b>VAUXHALL 012-17W4</b><br>GLAUCONITIC 05-012-17       | 662   | 0.90                     | 0.10                    | 536  |   | 536  | 37  | 20 062                               | 200     |
| GLAUCONITIC CH 07-012-17                                | 767   | 0.85                     | 0.10                    | 587  |   | 587  | 37  | 21 971                               | 200     |
| OTHER   | 1 320   |                          |                         | 979  |   | 979  |   | 36 619                               |         |
| TOTAL-VAUXHALL  | 2 749   |                          |                         | 2 102  |   | 2 102  |   | 78 652                               |         |
| <b>VEGA 061-03W5</b><br>TOTAL-VEGA                      | 282   |                          |                         | 184  | 6   | 178  |   | 7 311                                |         |
| <b>VENTRE (SA) 009-04W4</b><br>TOTAL-VENTRE             | 56  |                          |                         | 34   |   | 34   |   | 1 273                                |         |
| <b>VENUS 101-09W6</b><br>TOTAL-VENUS                    | 116   |                          |                         | 81   |   | 81   |   | 3 244                                |         |
| <b>VERDANT (SA) 029-17W4</b><br>TOTAL-VERDANT           | 18  |                          |                         | 9  |   | 9  |   | 334                                  |         |
| <b>VERGER 022-15W4</b><br>MILK RIVER A                  | 7 865   | 0.70                     | 0.05                    | 5 230  |   |  | 36a   |                                      | 79 068  |
| MEDICINE HAT A  | 8 837   | 0.70                     | 0.03                    | 6 000  |   |  | 36a   |                                      | 73 443  |
| MEDICINE HAT C  | 174   | 0.50                     | 0.03                    | 84   |   |  | 36a   |                                      | 6 820   |
| MEDICINE HAT D  | 442   | 0.50                     | 0.03                    | 214  |   |  | 36  |                                      | 13 094  |
| SE ALTA GAS SYS(MU) TOTAL                               | 17 318  | 0.70                     | 0.05                    | 11 528   | 2 138   | 9 390  | 36a   | 340 951                              |         |
| SECOND WHITE SPECKS A                                   | 2 835   | 0.75                     | 0.05                    | 2 020  | 633   | 1 387  | 36  | 50 362                               | 29 166  |
| BASAL COLORADO A  | 620   | 0.85                     | 0.05                    | 501  | 344   | 157  | 38  | 5 936                                | 4 076   |
| MANNVILLE D ASSOC                                       | 469   | 0.75                     | 0.05                    | 334  | 27  | 307  | 39  | 12 065                               | 1 523   |
| OTHER   | 2 634   |                          |                         | 1 808  | 512   | 1 296  |   | 50 809                               |         |
| TOTAL-VERGER  | 23 876  |                          |                         | 16 191   | 3 654   | 12 537   |   | 460 123                              |         |
| <b>VERMILION 050-05W4</b><br>TOTAL-VERMILION            | 120   |                          |                         | 76   |   | 76   |   | 2 845                                |         |
| <b>VIKING-KINSELLA 047-10W4</b><br>UPPER & MID VIKING A |   | 0.85                     | 0.03                    |  |   |  | 38  |                                      | 194 196 |
| UPPER MANNVILLE YY                                      |   | 0.85                     | 0.03                    |  |   |  | 38  |                                      | 1 667   |
| U&M VIK A & U MANN YY TOTAL                             | 35 172  | 0.85                     | 0.05                    | 29 000   | 17 740  | 11 260   | 38  | 425 741                              |         |
| UPPER MANNVILLE D                                       | 608   | 0.65                     | 0.05                    | 375  | 335   | 40   | 37  | 1 497                                | 1 272   |
| UPPER MANNVILLE EE                                      | 1 220   | 0.70                     | 0.05                    | 811  | 753   | 58   | 37  | 2 171                                | 668     |
| UPPER MANNVILLE MMM                                     | 967   | 0.75                     | 0.05                    | 689  | 412   | 277  | 37  | 10 368                               | 3 348   |
| WAINWRIGHT  | 594   | 0.80                     | 0.05                    | 451  | 368   | 83   | 37  | 3 107                                | 1 730   |
| D-2 D   | 936   | 0.70                     | 0.05                    | 622  | 579   | 43   | 37a   | 1 594                                | 3 241   |
| OTHER   | 15 088  |                          |                         | 9 406  | 3 307   | 6 099  |   | 228 260                              |         |
| TOTAL-VIKING-KINSELLA                                   | 54 585  |                          |                         | 41 354   | 23 494  | 17 860   |   | 672 738                              |         |
| <b>VIOLET (SA) 079-02W4</b><br>TOTAL-VIOLET             | 3   |                          |                         | 2  |   | 2  |   | 86                                   |         |
| <b>VIRGINIA HILLS 064-13W5</b><br>BELLOY A SOLN         | 632   | 0.65                     | 0.30                    | 288b   |   |  | 40  |                                      |         |
| BELLOY A ASSOC  | 1 278   | 0.92                     | 0.15                    | 1 000b   | 850b  | 438  | 40  | 17 380                               | 2 248   |
| BEAVERHILL LAKE SOLN                                    | 6 635   | 0.36                     | 0.40                    | 1 430  | 1 084   | 346  | 40  | 13 857                               |         |
| OTHER   | 478   |                          |                         | 336  | 14  | 322  |   | 12 536                               |         |
| TOTAL-VIRGINIA HILLS                                    | 9 023   |                          |                         | 3 054  | 1 948   | 1 106  |   | 43 773                               |         |
| <b>VIRGO 115-06W6</b><br>BLUESKY A                      | 488   | 0.50                     | 0.05                    | 232  |   |  | 37  |                                      | 10 470  |
| BLUESKY A   | 14  | 0.65                     | 0.05                    | 9  |   |  | 39  |                                      | 200     |
| BLUESKY A   | 154   | 0.50                     | 0.05                    | 73   |   |  | 37  |                                      | 200     |
| BLUESKY A TOTAL   | 656   | 0.50                     | 0.05                    | 314  | 87  | 227  | 37  | 8 497                                |         |
| OTHER   | 3 601   |                          |                         | 1 941  | 273   | 1 668  |   | 68 262                               |         |
| TOTAL-VIRGO   | 4 257   |                          |                         | 2 255  | 360   | 1 895  |   | 76 759                               |         |



| 10                                   | 11  | 12                                   | 13  | 14                         | 15  | 16                                   | 17  | 18                                   | 19                                   | 20  |
|--------------------------------------|---|--------------------------------------|---|----------------------------|---|--------------------------------------|---|--------------------------------------|--------------------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS          | POROSITY                                  | LOG<br>SATN                          | INTER-<br>CORRELATION                     | FLUID                      | LOGGERS                                   | PERM<br>RELATIVE<br>RESULTS          | PERM<br>FORMATION<br>RESULTS              | LOG<br>TRAC                          | DATE<br>LAST<br>REVIEWED             | COMMENTS AND REMARKS  |
| m                                    | frac                                      | frac                                 | frac                                      | frac                       | frac                                      | frac                                 | frac                                      | frac                                 | frac                                 |   |
| 16.26<br>14.00                       | 0.216<br>0.250                            | 0.70<br>0.80                         | 11 440<br>11 580                          | 38<br>34                   | 0.788<br>0.783                            | 0.86<br>0.84                         | 1 058.2<br>1 081.8                        | 1979<br>1980                         | 1982<br>1982                         | PRURAS<br>PRURAS  |
| 3.93<br>2.78<br>0.65<br>0.86         | 0.154<br>0.170<br>0.139<br>0.139          | 0.55<br>0.55<br>0.60<br>0.60         | 3 140<br>4 310<br>4 450<br>4 450          | 16<br>17<br>19<br>19       | 0.938<br>0.913<br>0.921<br>0.921          | 0.58<br>0.57<br>0.57<br>0.57         | 355.7<br>487.7<br>487.7<br>487.7          | 1970<br>1904<br>1973<br>1973         | 1982<br>1980<br>1982<br>1982         | PART OF MED RIV POOL NO. 1 PRODUCTION<br>DECLINE<br>PART OF MED HAT POOL NO. 1<br>PART OF MED HAT POOL NO. 3<br>PART OF MED HAT POOL NO. 4  |
| 1.25<br>1.32<br>2.73                 | 0.216<br>0.207<br>0.164                   | 0.60<br>0.60<br>0.60                 | 5 690<br>8 450<br>10 410                  | 27<br>30<br>35             | 0.899<br>0.855<br>0.839                   | 0.57<br>0.60<br>0.60                 | 630.0<br>948.2<br>1 046.7                 | 1939<br>1959<br>1970                 | 1985<br>1984<br>1985                 | CNG PANALTA TCPL<br>PANALTA TCPL PART OF 2WS POOL NO. 1<br>TCPL CNG<br>CNG CONCURRENT PRODUCTION OIL DEPLETED   |
| 1.43<br>1.80                         | 0.230<br>0.340                            | 0.55<br>0.55                         | 5 580<br>5 580                            | 24<br>26                   | 0.890<br>0.893                            | 0.61<br>0.61                         | 714.5<br>699.5                            | 1977<br>1965                         | 1984<br>1982                         | PART OF VIK POOL NO. 2 MATERIAL BALANCE<br>PART OF VIK POOL NO. 2 MATERIAL BALANCE  |
| 2.17<br>3.87<br>2.97<br>4.45<br>4.43 | 0.280<br>0.260<br>0.276<br>0.259<br>0.092 | 0.60<br>0.75<br>0.60<br>0.75<br>0.65 | 4 210<br>4 610<br>5 470<br>5 120<br>4 670 | 27<br>23<br>23<br>29<br>34 | 0.916<br>0.912<br>0.895<br>0.910<br>0.925 | 0.59<br>0.60<br>0.59<br>0.59<br>0.58 | 751.0<br>725.4<br>758.5<br>704.4<br>737.9 | 1973<br>1955<br>1949<br>1949<br>1960 | 1976<br>1982<br>1983<br>1981<br>1984 | CWNGNUL MATERIAL BALANCE<br>CWNGNUL TCPL MATERIAL BALANCE<br>TCPL<br>NUL CWNGNUL TCPL MATERIAL BALANCE<br>CWNGNUL TCPL PRODUCTION DECLINE   |
| 3.27                                 | 0.184                                     | 0.75                                 | 13 440                                    | 77                         | 0.867                                     | 0.68<br>0.48<br>0.88                 | 1 883                                     | 1981<br>1981<br>1981                 | 1984<br>1984<br>1983                 | WSS CWNGNUL PREVIOUS CONCURRENT PRODUCTION<br>AND CWNGNUL PREVIOUS CONCURRENT PRODUCTION<br>AND CWNGNUL   |
| 2.00<br>1.50<br>24.00                | 0.210<br>0.250<br>0.329                   | 0.40<br>0.65<br>0.60                 | 2 640<br>2 690<br>1 590                   | 12<br>12<br>15             | 0.915<br>0.939<br>0.964                   | 0.73<br>0.57<br>0.73                 | 217.9<br>214.2<br>231.8                   | 1972<br>1972<br>1972                 | 1982<br>1982<br>1982                 | PART OF BLSKY POOL NO. 1<br>PART OF BLSKY POOL NO. 1 ASSIGNED WELL<br>10-15-115-4 WBM<br>PART OF BLSKY POOL NO. 1 ASSIGNED WELL:<br>00/12-24/114-05 WBM<br>PANALTA PART OF BLSKY POOL NO. 1 |

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE   | 1 2 3   |  |  | 4 5 6 7 8  |   |   |  |   | 9   |
|--|---|--|--|--|---|---|--|---|---|
|  | RAW GAS   |  |  | MARKETABLE GAS   |   |   |  |   | AREA<br><br>ha  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br><br>10 <sup>6</sup> m <sup>3</sup>                     | POOL<br>RECOVERY<br><br>frac   | SURFACE<br>LOSS<br><br>frac  | INITIAL<br>ESTABLISHED<br>RESERVES<br><br>10 <sup>6</sup> m <sup>3</sup>             | NET<br>CUMULATIVE<br>PRODUCTION<br><br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br><br>10 <sup>6</sup> m <sup>3</sup>          | GROSS<br>HEAT<br>VALUE<br><br>MJ/m <sup>3</sup>    | REMAINING<br>ENERGY<br>CONTENT<br><br>TJ  |   |
| <b>VOYAGER 045-17W5</b><br>TOTAL-VOYAGER   | 148   |  |  | 91   |   | 91  |  | 3 433   |   |
| <b>VULCAN 016-24W4</b><br>TURNER VALLEY C<br>OTHER<br>TOTAL-VULCAN   | 1 115<br>598<br>1 713   | 0.60   | 0.20   | 536<br>409<br>945  | 135<br>290<br>425   | 401<br>119<br>520   | 39   | 15 759<br>4 595<br>20 354   | 1 482   |
| <b>WABASCA (SA) 085-24W4</b><br>TOTAL-WABASCA  | 14  |  |  | 6  |   | 6   |  | 220   |   |
| <b>WAINWRIGHT 045-06W4</b><br>VIKING<br>COLONY R<br>COLONY V<br>COLONY W ASSOC<br>COLONY G<br>VIK & CLY G.R.V.W&EE TOTAL<br>COLONY<br>OTHER<br>TOTAL-WAINWRIGHT  | 2 210<br>91<br>6<br>1<br>58<br>2 366<br>372<br>5 030<br>7 768                           | 0.50<br>0.75<br>0.70<br>0.70<br>0.75<br>0.50<br>0.90                 | 0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05<br>0.05                 | 1 050<br>65<br>4<br>1<br>42<br>1 162<br>316<br>3 031<br>4 509                        | <br><br><br><br><br>384<br>118<br>687<br>1 189                        | <br><br><br><br><br>778<br>198<br>2 344<br>3 320                                    | 37<br>35<br>35<br>35<br>35<br>37<br>35             | <br><br><br><br><br>28 397<br>6 968<br>83 607<br>118 972  | 28 723<br>1 320<br>160<br>52<br>641                                   |
| <b>WALRUS (SA) 082-17W5</b><br>TOTAL-WALRUS  | 71  |  |  | 47   |   | 47  |  | 1 759   |   |
| <b>WANYANDIE 060-01W6</b><br>UPPER CARDIUM 03-060-01<br>OTHER<br>TOTAL-WANYANDIE   | 682<br>862<br>1 544   | 0.75   | 0.10   | 460<br>589<br>1 049  |   | 460<br>589<br>1 049   | 39   | 18 078<br>22 259<br>40 337  | 200   |
| <b>WAPITI 067-10W6</b><br>FALHER C-1<br>FALHER C-2<br>FALHER D-1<br>FLAHER E-1<br>FALH D TIGHT S5068-12<br>CADOMIN A<br>NIKANASSIN #1 30-066-10<br>NIKANASSIN 1&2 29-067-08<br>BELLOY 33-067-07<br>OTHER<br>TOTAL-WAPITI | 2 048<br>471<br>2 758<br>1 333<br>821<br>10 142<br>801<br>448<br>429<br>9 488<br>28 739 | 0.85<br>0.85<br>0.85<br>0.75<br>0.50<br>0.70<br>0.75<br>0.85<br>0.80 | 0.15<br>0.15<br>0.10<br>0.15<br>0.10<br>0.10<br>0.10<br>0.05<br>0.10 | 1 480<br>340<br>2 110<br>850<br>370<br>6 390<br>540<br>362<br>309<br>6 029<br>18 780 | 430<br>254<br>457<br>701<br><br><br>2<br>488<br>2 332                 | 1 050<br>86<br>1 653<br>149<br>370<br>6 388<br>540<br>362<br>309<br>5 541<br>16 448 | 38<br>38<br>38<br>38<br>38<br>38<br>39<br>39<br>39 | 39 386<br>3 226<br>62 004<br>5 589<br>13 879<br>239 614<br>21 222<br>14 227<br>12 144<br>209 359<br>620 650 | 4 305<br>200<br>10 344<br>440<br>4 810<br>29 252<br>200<br>200<br>200 |
| <b>WAPPAU (SA) 074-11W4</b><br>TOTAL-WAPPAU  | 22  |  |  | 14   |   | 14  |  | 528   |   |
| <b>WARRENSVILLE (SA) 084-24W5</b><br>TOTAL-WARRENSVILLE  | 71  |  |  | 43   |   | 43  |  | 1 609   |   |
| <b>WARSPITE 060-18W4</b><br>TOTAL-WARSPITE   | 664   |  |  | 441  | 150   | 291   |  | 11 389  |   |
| <b>WARWICK 052-14W4</b><br>UPPER MANNVILLE E<br>UPPER MANNVILLE G<br>UPPER MANNVILLE K<br>UPPER MANNVILLE M<br>OTHER<br>TOTAL-WARWICK  | 481<br>587<br>996<br>500<br>11 266<br>13 830  | 0.75<br>0.75<br>0.75<br>0.70   | 0.05<br>0.05<br>0.05<br>0.05   | 343<br>418<br>710<br>333<br>7 462<br>9 266   | 43<br>385<br>508<br>279<br>2 892<br>4 107                             | 300<br>33<br>202<br>54<br>4 570<br>5 159  | 37<br>37<br>37<br>37                               | 11 229<br>1 235<br>7 561<br>2 021<br>170 443<br>192 489   | 1 676<br>1 655<br>538<br>1 782  |
| <b>WASKAHIGAN 064-23W5</b><br>DUNVEGAN A SOLN<br>DUNVEGAN A ASSOC<br>DUNVEGAN C SOLN<br><br>DUNVEGAN C ASSOC<br><br>DUNVEGAN B<br>OTHER<br>TOTAL-WASKAHIGAN  | 280<br>516<br>46<br><br>1 000<br>920<br>1 078<br>3 840                                  | 0.60<br>0.90<br>0.65<br><br>0.80<br>0.85                             | 0.10<br>0.10<br>0.10<br><br>0.10                                     | 151b<br>418b<br>27b<br><br>720b<br>704<br>728<br>2 748                               | <br>268b<br><br><br>591b<br>445<br>72<br>1 376                        | 41<br>41<br>41<br><br>156<br>259<br>656<br>1 372                                    | 41<br>41<br>41                                     | 12 395<br><br><br>6 424<br>10 666<br>26 198<br>55 683   | 955<br><br><br>2 341<br>2 613   |
| <b>WATCH 054-22W5</b><br>TOTAL-WATCH   | 182   |  |  | 128  |   | 128   |  | 5 030   |   |



| 10                          | 11      | 12      | 13                  | 14   | 15      | 16      | 17                          | 18   | 19                     | 20  |
|-----------------------------|---------|---------|---------------------|------|---------|---------|-----------------------------|------|------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | PERCENT | PERCENT | INITIAL<br>PRESSURE | TIME | PERCENT | PERCENT | MEAN<br>FORMATION<br>EFFECT | TIME | DATE<br>LAST<br>REVIEW | REMARKS                                     |
| m                           | PERCENT | PERCENT | KPA                 | SEC  | PERCENT | PERCENT | m                           | SEC  |                        |   |
| 6.37                        | 0.101   | 0.60    | 16 820              | 64   | 0.816   | 0.80    | 1 833.6                     | 1960 | 1977                   | TCPL  |
| 1.04                        | 0.248   | 0.55    | 5 030               | 21   | 0.897   | 0.60    | 590.7                       | 1953 | 1981                   |   |
| 1.52                        | 0.210   | 0.50    | 4 160               | 23   | 0.923   | 0.59    | 593.8                       | 1973 | 1983                   |   |
| 0.55                        | 0.260   | 0.60    | 3 900               | 22   | 0.924   | 0.60    | 598.8                       | 1975 | 1979                   |   |
| 0.51                        | 0.200   | 0.55    | 4 150               | 22   | 0.919   | 0.60    | 600.0                       | 1977 | 1979                   |   |
| 1.22                        | 0.289   | 0.60    | 4 140               | 24   | 0.921   | 0.59    | 594.8                       | 1973 | 1983                   |   |
| 3.35                        | 0.250   | 0.60    | 3 810               | 25   | 0.930   | 0.60    | 633.7                       | 1952 | 1977                   | UNION PACIFIC TCPL RANGLAZ                  |
| 10.70                       | 0.200   | 0.89    | 19 610              | 92   | 0.863   | 0.69    | 2 291.0                     | 1980 | 1980                   |   |
| 4.32                        | 0.090   | 0.65    | 20 640              | 83   | 0.876   | 0.67    | 2 471.2                     | 1978 | 1985                   | PANALTA PROSAS TCPL                         |
| 6.58                        | 0.065   | 0.60    | 25 000              | 91   | 0.920   | 0.64    | 2 246.4                     | 1980 | 1985                   | TCPL PRODUCTION DECLINE NONCOMMERCIAL OIL   |
| 3.13                        | 0.068   | 0.70    | 21 050              | 91   | 0.919   | 0.60    | 2 479.5                     | 1979 | 1985                   | PANALTA PROSAS TCPL                         |
| 3.30                        | 0.109   | 0.70    | 20 232              | 102  | 0.901   | 0.70    | 2 555.2                     | 1979 | 1985                   | PANALTA PROSAS TCPL PRODUCTION DECLINE      |
| 1.93                        | 0.085   | 0.60    | 21 050              | 101  | 0.923   | 0.71    | 2 426.0                     | 1979 | 1985                   | PANALTA TCPL                                |
| 4.37                        | 0.047   | 0.70    | 21 420              | 88   | 0.887   | 0.79    | 2 805.2                     | 1956 | 1985                   | PANALTA PROSAS TCPL PART OF UCM FIELD NO. 1 |
| 19.30                       | 0.110   | 0.85    | 25 000              | 77   | 0.915   | 0.61    | 2 914.0                     | 1980 | 1984                   |   |
| 11.40                       | 0.110   | 0.80    | 24 700              | 69   | 0.920   | 0.69    | 2 606.1                     | 1981 | 1984                   | PROGAS TCPL                                 |
| 16.00                       | 0.135   | 0.55    | 22 930              | 117  | 0.926   | 0.68    | 2 956.2                     | 1980 | 1981                   | TCPL  |
| 2.42                        | 0.300   | 0.70    | 5 210               | 23   | 0.893   | 0.59    | 677.9                       | 1969 | 1982                   | TCPL  |
| 1.70                        | 0.280   | 0.75    | 4 900               | 27   | 0.911   | 0.57    | 760.8                       | 1970 | 1983                   | TCPL PRODUCTION DECLINE                     |
| 6.85                        | 0.280   | 0.80    | 4 760               | 30   | 0.917   | 0.57    | 701.5                       | 1970 | 1985                   | TCPL MATERIAL BALANCE                       |
| 2.85                        | 0.238   | 0.65    | 4 700               | 38   | 0.920   | 0.58    | 749.6                       | 1970 | 1985                   | TCPL PRODUCTION DECLINE                     |
| 5.12                        | 0.160   | 0.65    | 10 210              | 63   | 0.854   | 0.66    | 1 546.5                     | 1967 | 1984                   | A&S CONCURRENT PRODUCTION                   |
|                             |         |         |                     |      |         | 0.59    |                             | 1967 | 1983                   | A&S CONCURRENT PRODUCTION                   |
|                             |         |         |                     |      |         | 0.59    |                             | 1959 | 1984                   | A&S PRODUCTION DECLINE CONCURRENT           |
| 2.80                        | 0.140   | 0.55    | 10 240              | 63   | 0.854   | 0.66    | 1 501.1                     | 1959 | 1984                   | PRODUCTION                                  |
| 2.87                        | 0.120   | 0.65    | 10 360              | 64   | 0.855   | 0.67    | 1 588.4                     | 1961 | 1985                   | A&S PRODUCTION DECLINE CONCURRENT           |
|                             |         |         |                     |      |         |         |                             |      |                        | PRODUCTION                                  |
|                             |         |         |                     |      |         |         |                             |      |                        | A&S MATERIAL BALANCE                        |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE  | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>WATELET 047-26W4</b><br>TOTAL-WATELET      | 517   |                          |                         | 334  | 49  | 285  |   | 11 277                               |        |
| <b>WATERTON 004-01W5</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| RUNDLE C                                      | 7 143   | 0.80                     | 0.30                    | 4 000  | 454   | 3 546  | 39a   | 138 046                              | 2 378  |
| RUNDLE D & E                                  | 19 479  | 0.80                     | 0.52                    | 7 480  |   |  | 39  |                                      | 7 520  |
| RUNDLE D & E TOTAL                            | 19 479  | 0.80                     | 0.50                    | 7 480  | 3 462   | 4 018  | 39a   | 156 421                              |        |
| RUNDLE A                                      | 1 358   | 0.80                     | 0.30                    | 760  |   |  | 39a   |                                      | 200    |
| RUNDLE H                                      | 556   | 0.85                     | 0.30                    | 330  |   |  | 39a   |                                      | 200    |
| RUNDLE A & H TOTAL                            | 1 914   | 0.80                     | 0.30                    | 1 090  | 152   | 938  | 39a   | 36 516                               |        |
| RUNDLE 05-006-01                              | 950   | 0.75                     | 0.15                    | 606  |   | 606  | 39  | 23 592                               | 200    |
| RUNDLE-WABAMUN A                              | 84 194  | 0.88                     | 0.34                    | 48 900   | 36 650  | 12 250   | 39a   | 481 425                              | 5 768  |
| WABAMUN B                                     | 924   | 0.85                     | 0.28                    | 566  | 304   | 262  | 36  | 9 416                                | 386    |
| WABAMUN 31-006-03                             | 908   | 0.85                     | 0.35                    | 502  |   | 502  | 36  | 18 042                               | 512    |
| WABAMUN 03-006-03                             | 842   | 0.65                     | 0.20                    | 438  |   | 438  | 36  | 15 742                               | 200    |
| OTHER   | 1 142   |                          |                         | 638  | 1   | 637  |   | 24 392                               |        |
| TOTAL-WATERTON                                | 117 496   |                          |                         | 64 220   | 41 023  | 23 197   |   | 903 592                              |        |
| <b>WATTS 031-16W4</b><br>TOTAL-WATTS          | 1 036   |                          |                         | 659  | 97  | 562  |   | 21 835                               |        |
| <b>WAVY LAKE 043-14W4</b><br>TOTAL-WAVY LAKE  | 890   |                          |                         | 592  | 84  | 508  |   | 19 067                               |        |
| <b>WAYNE-ROSEDALE 027-19W4</b>                |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER J                                 | 28  | 0.65                     | 0.05                    | 17   |   |  | 37  |                                      | 200    |
| BELLY RIVER K                                 | 514   | 0.60                     | 0.05                    | 293  |   |  | 37  |                                      | 3 348  |
| BELLY RIVER J & K TOTAL                       | 542   | 0.60                     | 0.05                    | 310  | 38  | 272  | 37  | 10 181                               |        |
| MEDICINE HAT A                                | 1 664   | 0.70                     | 0.03                    | 1 130  |   |  | 36a   |                                      | 25 841 |
| SE ALTA GAS SYS (MU) TOTAL                    | 1 664   | 0.70                     | 0.05                    | 1 130  |   | 1 130  | 36a   | 41 030                               |        |
| VIKING A                                      | 3 437   | 0.95                     | 0.05                    | 3 100  | 2 621   | 479  | 37a   | 17 929                               | 25 593 |
| VIKING B                                      | 676   | 0.90                     | 0.05                    | 563  | 380   | 183  | 37  | 6 850                                | 3 280  |
| GLAUCONITIC A                                 | 1 050   | 0.90                     | 0.10                    | 851  | 817   | 34   | 42  | 1 425                                | 1 625  |
| GLAUCONITIC G                                 | 789   | 0.90                     | 0.10                    | 639  | 616   | 23   | 42  | 964                                  | 975    |
| GLAUCONITIC I                                 | 512   | 0.85                     | 0.10                    | 392  | 194   | 198  | 42  | 8 300                                | 200    |
| GLAUCONITIC T                                 | 1 847   | 0.80                     | 0.10                    | 1 330  | 330   | 1 000  | 42  | 41 920                               | 7 773  |
| DSTRACDD A                                    | 479   | 0.85                     | 0.05                    | 386  | 329   | 57   | 42  | 2 389                                | 260    |
| BASAL QUARTZ E SOLN                           | 148   | 0.60                     | 0.10                    | 80 <sup>b</sup>  |   |  | 42  |                                      |        |
| BASAL QUARTZ E ASSOC                          | 418   | 0.80                     | 0.10                    | 301 <sup>b</sup>   | 55 <sup>b</sup>   | 326  | 42  | 13 666                               | 684    |
| OTHER   | 12 241  |                          |                         | 6 175  | 1 870   | 4 305  |   | 175 064                              |        |
| TOTAL-WAYNE-ROSEDALE                          | 23 803  |                          |                         | 15 257   | 7 250   | 8 007  |   | 319 718                              |        |
| <b>WEALD 050-19W5</b><br>TOTAL-WEALD          | 600   |                          |                         | 434  |   | 434  |   | 17 384                               |        |
| <b>WEASEL 058-19W4</b><br>TOTAL-WEASEL        | 191   |                          |                         | 125  |   | 125  |   | 4 655                                |        |
| <b>WEASONE (SA) 062-09W5</b><br>TOTAL-WEASONE | 100   |                          |                         | 66   |   | 66   |   | 2 470                                |        |
| <b>WEBSTER 074-05W6</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| LOWER MANNVILLE A                             | 811   | 0.80                     | 0.15                    | 552  | 51  | 501  | 37  | 18 377                               | 2 052  |
| BELLOY 04-074-05                              | 733   | 0.90                     | 0.10                    | 594  |   | 594  | 37  | 22 233                               | 128    |
| OTHER   | 646   |                          |                         | 475  | 186   | 289  |   | 10 817                               |        |
| TOTAL-WEBSTER                                 | 2 190   |                          |                         | 1 621  | 237   | 1 384  |   | 51 427                               |        |
| <b>WELLBURN 009-18W4</b><br>TOTAL-WELLBURN    | 87  |                          |                         | 52   | 26  | 26   |   | 945                                  |        |
| <b>WEMBLEY 073-08W6</b><br>HALFWAY B ASSOC    | 4 238   | C                        | C                       | 3 060  |   | 3 060  | 40  | 122 400                              | 4 830  |
| DOIG E ASSOC                                  | 957   | 0.85                     | 0.15                    | 691  |   | 691  | 34  | 23 791                               | 1 163  |
| OTHER   | 447   |                          |                         | 309  |   | 309  |   | 11 119                               |        |
| TOTAL-WEMBLEY                                 | 5 642   |                          |                         | 4 060  |   | 4 060  |   | 157 310                              |        |
| <b>WERNER 034-12W4</b><br>TOTAL-WERNER        | 122   |                          |                         | 82   |   | 82   |   | 3 192                                |        |
| <b>WEST COVE 055-06W5</b><br>TOTAL-WEST COVE  | 717   |                          |                         | 503  |   | 503  |   | 21 126                               |        |



| 10                          | 11      | 12      | 13                  | 14   | 15      | 16      | 17                         | 18   | 19               | 20                                       |
|-----------------------------|---------|---------|---------------------|------|---------|---------|----------------------------|------|------------------|--|
| AVERAGE<br>PAY<br>THICKNESS | PERCENT | PERCENT | INITIAL<br>PRESSURE | TIME | PERCENT | PERCENT | MEAN<br>FORMATION<br>DEPTH | YEAR | DATE<br>REVIEWED | DESCRIPTION AND REMARKS                  |
| m                           | frac    | frac    | kPa                 | sec  | frac    | frac    | m                          |      |                  |  |
| 26.88                       | 0.050   | 0.75    | 36 540              | 91   | 0.958   | 0.77    | 3 549.3                    | 1981 | 1984             | ASL                                      |
| 19.00                       | 0.050   | 0.80    | 34 840              | 79   | 0.827   | 0.86    | 3 536.3                    | 1981 | 1982             | MATERIAL BALANCE                         |
|                             |         |         |                     |      |         |         |                            | 1981 | 1983             | ASL                                      |
| 8.64                        | 0.050   | 0.80    | 29 160              | 24   | 0.724   | 0.87    | 2 780.7                    | 1980 | 1982             | MATERIAL BALANCE                         |
| 23.75                       | 0.054   | 0.85    | 30 230              | 102  | 0.898   | 0.93    | 3 340.0                    | 1980 | 1978             |  |
|                             |         |         |                     |      |         |         |                            | 1980 | 1978             | ASL                                      |
| 52.00                       | 0.040   | 0.80    | 40 530              | 104  | 1.011   | 0.78    | 4 441.0                    | 1981 | 1982             | PROGAS                                   |
| 27.90                       | 0.053   | 0.80    | 32 960              | 80   | 0.908   | 0.84    | 3 124.3                    | 1981 | 1983             | ASL MATERIAL BALANCE GAS CYCLING         |
| 19.30                       | 0.053   | 0.80    | 40 800              | 101  | 1.061   | 0.88    | 4 191.3                    | 1981 | 1982             | ASL PROGAS MATERIAL BALANCE              |
| 17.89                       | 0.053   | 0.80    | 27 720              | 96   | 0.914   | 0.67    | 3 710.8                    | 1981 | 1982             | PROGAS                                   |
| 38.30                       | 0.050   | 0.80    | 35 240              | 83   | 1.024   | 0.66    | 3 427.0                    | 1981 | 1983             | ASL PROGAS                               |
|                             |         |         |                     |      |         |         |                            |      |                  |  |
| 4.00                        | 0.260   | 0.45    | 2 900               | 18   | 0.942   | 0.56    | 505.0                      | 1978 | 1980             |  |
| 3.46                        | 0.236   | 0.60    | 3 080               | 24   | 0.942   | 0.56    | 694.3                      | 1977 | 1984             |  |
|                             |         |         |                     |      |         |         |                            | 1977 | 1984             | TCPL                                     |
| 1.36                        | 0.170   | 0.55    | 4 310               | 17   | 0.913   | 0.57    | 487.7                      | 1904 | 1981             | PART OF MED MAT POOL NO.1                |
|                             |         |         |                     |      |         |         |                            | 1904 | 1983             | TCPL                                     |
| 2.06                        | 0.200   | 0.70    | 8 070               | 38   | 0.851   | 0.64    | 1 184.8                    | 1953 | 1984             | CWNG CWNGNUL TCPL MATERIAL BALANCE       |
| 2.87                        | 0.174   | 0.40    | 8 070               | 38   | 0.847   | 0.64    | 1 214.2                    | 1954 | 1982             | TCPL MATERIAL BALANCE                    |
| 4.75                        | 0.198   | 0.70    | 10 070              | 42   | 0.810   | 0.68    | 1 330.1                    | 1953 | 1982             | TCPL MATERIAL BALANCE                    |
| 4.42                        | 0.180   | 0.75    | 11 107              | 41   | 0.800   | 0.67    | 1 331.9                    | 1957 | 1980             | TCPL MATERIAL BALANCE                    |
| 3.70                        | 0.198   | 0.70    | 10 070              | 44   | 0.820   | 0.67    | 1 346.9                    | 1957 | 1982             | TCPL MATERIAL BALANCE                    |
| 2.30                        | 0.177   | 0.55    | 9 670               | 40   | 0.828   | 0.64    | 1 282.0                    | 1966 | 1984             | TCPL PART OF GLAUC POOL NO.4             |
| 5.24                        | 0.200   | 0.65    | 10 100              | 46   | 0.825   | 0.67    | 1 339.8                    | 1962 | 1981             | TCPL MATERIAL BALANCE                    |
|                             |         |         |                     |      |         |         |                            | 1959 | 1983             | TCPL CONCURRENT PRODUCTION               |
| 6.20                        | 0.167   | 0.50    | 10 340              | 38   | 0.801   | 0.70    | 1 341.0                    | 1959 | 1983             | TCPL CONCURRENT PRODUCTION               |
|                             |         |         |                     |      |         |         |                            |      |                  |  |
| 3.38                        | 0.140   | 0.55    | 14 690              | 75   | 0.800   | 0.76    | 1 665.1                    | 1973 | 1977             | CWNGNUL TCPL                             |
| 21.89                       | 0.200   | 0.70    | 10 240              | 71   | 0.837   | 0.77    | 1 665.4                    | 1973 | 1983             | TCPL                                     |
|                             |         |         |                     |      |         |         |                            |      |                  |  |
| 4.71                        | 0.104   | 0.80    | 21 360              | 73   | 0.784   | 0.87    | 2 059.5                    | 1978 | 1985             | PROGAS SLPETRO PART OF HALFWAY POOL NO.1 |
| 6.69                        | 0.077   | 0.80    | 21 680              | 85   | 0.862   | 0.77    | 2 117.9                    | 1972 | 1985             | GAS CYCLING SCHEME<br>PROGAS             |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE             | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>WEST DRUMHELLER 030-21W4</b><br>TOTAL-WEST DRUMHELLER | 1 253   |                          |                         | 312  | 51  | 261  |   | 10 576                               |        |
| <b>WESTEEN (SA) 006-15W4</b><br>TOTAL-WESTEEN            | 13  |                          |                         | B  |   | B  |   | 299                                  |        |
| <b>WESTEROSE 046-28W4</b><br>UPPER MANNVILLE B           | 2 778   | 0.80                     | 0.10                    | 2 000  |   | 2 000  | 42  | 84 600                               | 2 903  |
| D-3 SDLN   | 5 146   | 0.71                     | 0.15                    | 3 106 <sup>b</sup>   |   |  | 39a   |                                      |        |
| D-3 ASSOC  | 3 751   | 0.90                     | 0.15                    | 2 870 <sup>b</sup>   | 2 197 <sup>b</sup>  | 3 779  | 39a   | 148 515                              | 511    |
| OTHER  | 1 436   |                          |                         | 939  | 17  | 922  |   | 37 658                               |        |
| TOTAL-WESTEROSE  | 13 111  |                          |                         | 8 915  | 2 214   | 6 701  |   | 270 773                              |        |
| <b>WESTEROSE SOUTH 044-01W5</b><br>GLAUCONITIC A         | 23 810  | 0.70                     | 0.10                    | 15 000   | 2 146   | 12 854   | 38  | 490 766                              | 23 994 |
| D-3 A  | 51 069  | 0.88                     | 0.15                    | 38 200   | 36 833  | 1 367  | 40a   | 54 243                               | 4 770  |
| OTHER  | 2 326   |                          |                         | 1 506  | 11  | 1 495  |   | 58 926                               |        |
| TOTAL-WESTEROSE SOUTH                                    | 77 205  |                          |                         | 54 706   | 38 990  | 15 716   |   | 603 935                              |        |
| <b>WESTLOCK 059-26W4</b><br>VIKING U                     | 385   | 0.85                     | 0.04                    | 315  | 22  | 293  | 40  | 11 626                               | 5 538  |
| VIKING   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 33 962 |
| VIKING B   | 526   | 0.80                     | 0.05                    | 399  |   |  | 40  |                                      | 8 596  |
| VIKING I   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 4 811  |
| VIKING J   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 400    |
| VIKING K   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 2 531  |
| VIKING L   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 1 893  |
| VIKING M   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 916    |
| VIKING N   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 6 992  |
| VIKING O   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 1 457  |
| VIKING P   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 1 461  |
| VIKING Q   |   | 0.95                     | 0.04                    |  |   |  | 40  |                                      | 200    |
| VIK,VIK BIJKLMNOP & Q TOTAL                              | 13 377  | 0.95                     | 0.05                    | 12 200   | 9 601   | 2 599  | 40  | 103 128                              |        |
| LOWER MANNVILLE B  | 507   | 0.75                     | 0.10                    | 342  | 170   | 172  | 41a   | 7 083                                | 1 993  |
| OTHER  | 2 856   |                          |                         | 1 996  | 385   | 1 611  |   | 65 271                               |        |
| TOTAL-WESTLOCK   | 17 125  |                          |                         | 14 853   | 10 178  | 4 675  |   | 187 108                              |        |
| <b>WESTPEM 049-13W5</b><br>BLUERIDGE 14-049-13           | 448   | 0.80                     | 0.15                    | 305  |   | 305  | 39  | 11 987                               | 200    |
| NISKU E  | 1 160   | c                        | c                       | 709  |   | 709  | 45a   | 31 735                               | 70     |
| OTHER  | 1 649   |                          |                         | 1 036  | -408  | 1 444  |   | 56 749                               |        |
| TOTAL-WESTPEM  | 3 257   |                          |                         | 2 050  | -408  | 2 458  |   | 100 471                              |        |
| <b>WETASKIWIN 045-24W4</b><br>TOTAL-WETASKIWIN           | 286   |                          |                         | 190  |   | 190  |   | 7 112                                |        |
| <b>WHISKEY 022-05W5</b><br>RUNDLE A                      | 2 648   | 0.40                     | 0.15                    | 900  | 6   | 894  | 42a   | 37 146                               | 440    |
| OTHER  | 1 678   |                          |                         | 327  |   | 327  |   | 12 429                               |        |
| TOTAL-WHISKEY  | 4 326   |                          |                         | 1 227  | 6   | 1 221  |   | 49 575                               |        |
| <b>WHITE ROSE (SA) 118-01W6</b><br>TOTAL-WHITE ROSE      | 5   |                          |                         | 3  |   | 3  |   | 118                                  |        |
| <b>WHITECOURT 060-11W5</b><br>CADOMIN A & JURASSIC       | 2 222   | 0.85                     | 0.10                    | 1 700  |   |  | 40  |                                      | 1 879  |
| CADOMIN A&JURASSIC E TOTAL                               | 2 222   | 0.85                     | 0.10                    | 1 700  | 1 161   | 539  | 40  | 21 587                               |        |
| JURASSIC C   | 3 421   | 0.80                     | 0.05                    | 2 600  | 1 301   | 1 299  | 40  | 52 025                               | 699    |
| JURASSIC D   | 417   | 0.80                     | 0.10                    | 300  | 205   | 95   | 40  | 3 805                                | 1 172  |
| PEKISKD E  | 4 445   | 0.80                     | 0.10                    | 3 200  | 1 134   | 2 066  | 40  | 82 640                               | 6 272  |
| OTHER  | 1 913   |                          |                         | 1 336  | 179   | 1 157  |   | 46 067                               |        |
| TOTAL-WHITECOURT   | 12 418  |                          |                         | 9 136  | 3 980   | 5 156  |   | 206 124                              |        |
| <b>WHITEHORSE 049-15W5</b><br>NISKU 1B-050-15            | 899   | 0.85                     | 0.05                    | 726  |   | 726  | 39  | 28 532                               | 128    |
| NISKU 20-050-15  | 814   | 0.80                     | 0.10                    | 586  |   | 586  | 39  | 23 030                               | 200    |
| OTHER  | 1 180   |                          |                         | 856  | 17  | 839  |   | 33 631                               |        |
| TOTAL-WHITEHORSE   | 2 893   |                          |                         | 2 168  | 17  | 2 151  |   | 85 193                               |        |
| <b>WHITELAW 082-02W6</b><br>SPIRIT RIVER F               | 310   | 0.80                     | 0.05                    | 235  |   |  | 38  |                                      | 1 629  |
| SPIRIT RIVER G   | 261   | 0.65                     | 0.05                    | 161  |   |  | 38  |                                      | 2 119  |
| SPIRIT RIVER H   | 185   | 0.65                     | 0.05                    | 114  |   |  | 38  |                                      | 1 668  |



| 10                           | 11      | 12           | 13                  | 14    | 15       | 16                               | 17                         | 18           | 19          | 20  |
|------------------------------|---------|--------------|---------------------|-------|----------|----------------------------------|----------------------------|--------------|-------------|---|
| AVERAGE<br>PAT.<br>THICKNESS | FORCIST | SAT.<br>SATN | INITIAL<br>PRESSURE | TEMP. | COMPRESS | REL. SAT.<br>RELATION<br>DENSITY | DEAR<br>FORMATION<br>DEPTH | SAT.<br>YEAR | SAT.<br>DAY | DESCRIPTION AND REMARKS   |
| m                            | frac    | frac         | kPa                 | °C    | frac     | frac                             | m                          |              |             |   |
| 7.61                         | 0.125   | 0.70         | 12 460              | 48    | 0.773    | 0.77                             | 1 683.0                    | 1980         | 1981        | TANALTA<br>TCPL CONCURRENT PRODUCTION<br>TCPL CONCURRENT SUBDUCTION                       |
| 57.35                        | 0.080   | 0.90         | 11 470              | 64    | 0.830    | 0.76                             | 2 146.1                    | 1982         | 1984        |   |
|                              |         |              |                     |       |          |                                  |                            |              |             |   |
| 9.54                         | 0.112   | 0.55         | 16 600              | 73    | 0.808    | 0.72                             | 1 851.8                    | 1977         | 1980        | NORCEN TCPL AND<br>AND TCPL MATERIAL BALANCE GAS CYCLING                                  |
| 75.90                        | 0.085   | 0.90         | 18 960              | 83    | 0.794    | 0.82                             | 2 325.1                    | 1984         | 1986        |   |
|                              |         |              |                     |       |          |                                  |                            |              |             |   |
| 0.98                         | 0.199   | 0.60         | 5 820               | 37    | 0.897    | 0.61                             | 794.3                      | 1989         | 1984        | NORCEN TCPL<br>MATERIAL BALANCE   |
| 2.16                         | 0.192   | 0.65         | 5 820               | 37    | 0.897    | 0.61                             | 776.8                      | 1989         | 1984        |   |
| 0.85                         | 0.190   | 0.65         | 5 640               | 33    | 0.900    | 0.60                             | 712.9                      | 1982         | 1984        |   |
| 1.50                         | 0.203   | 0.65         | 5 820               | 37    | 0.897    | 0.61                             | 759.4                      | 1984         | 1984        |   |
| 1.25                         | 0.206   | 0.60         | 5 820               | 37    | 0.897    | 0.61                             | 767.2                      | 1988         | 1984        |   |
| 1.02                         | 0.190   | 0.60         | 5 820               | 37    | 0.897    | 0.61                             | 748.7                      | 1989         | 1984        |   |
| 0.62                         | 0.130   | 0.50         | 5 820               | 37    | 0.897    | 0.61                             | 783.8                      | 1984         | 1984        |   |
| 0.77                         | 0.190   | 0.65         | 5 820               | 37    | 0.897    | 0.61                             | 724.1                      | 1961         | 1984        |   |
| 0.81                         | 0.162   | 0.55         | 5 820               | 37    | 0.897    | 0.61                             | 784.2                      | 1983         | 1984        |   |
| 0.52                         | 0.190   | 0.50         | 5 820               | 37    | 0.897    | 0.61                             | 762.5                      | 1975         | 1984        |   |
| 1.32                         | 0.191   | 0.65         | 5 820               | 37    | 0.897    | 0.61                             | 734.2                      | 1959         | 1984        |   |
| 1.20                         | 0.192   | 0.65         | 5 820               | 37    | 0.897    | 0.61                             | 718.7                      | 1961         | 1984        |   |
|                              |         |              |                     |       |          |                                  |                            | 1944         | 1984        |   |
| 2.91                         | 0.207   | 0.60         | 6 670               | 36    | 0.874    | 0.62                             | 955.5                      | 1981         | 1982        |   |
|                              |         |              |                     |       |          |                                  |                            |              |             |   |
| 10.47                        | 0.090   | 0.80         | 39 720              | 91    | 1.045    | 0.78                             | 3 103.0                    | 1980         | 1981        | GAS CYCLING   |
| 36.51                        | 0.106   | 0.90         | 39 720              | 106   | 1.083    | 1.26                             | 3 148.9                    | 1978         | 1982        |   |
|                              |         |              |                     |       |          |                                  |                            |              |             |   |
| 41.50                        | 0.076   | 0.75         | 26 300              | 77    | 0.840    | 0.75                             | 3 531.9                    | 1983         | 1984        | TCPL TOP/BASE TOL   |
|                              |         |              |                     |       |          |                                  |                            |              |             |   |
| 5.38                         | 0.168   | 0.50         | 12 830              | 66    | 0.855    | 0.65                             | 1 527.1                    | 1962         | 1983        | MATERIAL BALANCE<br>TCPL<br>TCPL PRODUCTION DECLINE<br>PROGAS TCPL<br>TANALTA PROGAS TCPL |
| 2.79                         | 0.160   | 0.45         | 12 690              | 60    | 0.846    | 0.64                             | 1 533.8                    | 1968         | 1984        |   |
| 5.58                         | 0.150   | 0.35         | 12 170              | 66    | 0.841    | 0.67                             | 1 549.0                    | 1969         | 1980        |   |
| 8.79                         | 0.098   | 0.65         | 12 780              | 66    | 0.837    | 0.65                             | 1 581.8                    | 1969         | 1985        |   |
|                              |         |              |                     |       |          |                                  |                            |              |             |   |
| 56.74                        | 0.060   | 0.85         | 31 610              | 100   | 0.993    | 0.62                             | 3 374.5                    | 1980         | 1982        | PROGAS<br>PROGAS TCPL   |
| 21.45                        | 0.089   | 0.89         | 29 120              | 87    | 0.971    | 0.60                             | 3 276.5                    | 1981         | 1981        |   |
|                              |         |              |                     |       |          |                                  |                            |              |             |   |
| 2.29                         | 0.250   | 0.50         | 8 310               | 33    | 0.896    | 0.57                             | 15.0                       | 1981         | 1980        |   |
| 2.02                         | 0.230   | 0.50         | 8 140               | 30    | 0.913    | 0.57                             | 620.6                      | 1977         | 1978        |   |
| 1.25                         | 0.280   | 0.50         | 6 100               | 33    | 0.900    | 0.57                             | 683.1                      | 1977         | 1982        |   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>WHITELAW 082-02W6<br/>(CONTINUED)</b>     |   |                          |                         |  |   |  |   |                                      |        |
| SPIRIT RIVER FG & H TOTAL                    | 756   | 0.70                     | 0.05                    | 510  | 190   | 320  | 38  | 12 218                               |        |
| BLUESKY A                                    | 379   | 0.75                     | 0.05                    | 270  |   |  | 38  |                                      | 2 025  |
| GETHING A                                    | 382   | 0.85                     | 0.10                    | 293  |   |  | 38  |                                      | 2 167  |
| BLSKY A & GETH A TOTAL                       | 761   | 0.80                     | 0.10                    | 563  | 140   | 423  | 38  | 16 150                               |        |
| GETHING B                                    | 573   | 0.80                     | 0.05                    | 435  | 262   | 173  | 38  | 6 605                                | 1 747  |
| TRIASSIC A                                   | 586   | 0.90                     | 0.05                    | 501  |   | 501  | 41  | 20 441                               | 780    |
| OTHER  | 828   |                          |                         | 527  | 81  | 446  |   | 17 606                               |        |
| TOTAL-WHITELAW                               | 3 504   |                          |                         | 2 536  | 673   | 1 863  |   | 73 020                               |        |
| <b>WHITEMUD 051-25W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WHITEMUD                               | 178   |                          |                         | 118  | 28  | 90   |   | 3 874                                |        |
| <b>WHITFORD 058-16W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 1 303   | 0.80                     | 0.05                    | 990  | 32  | 958  | 37  | 35 858                               | 16 299 |
| OTHER  | 1 809   |                          |                         | 1 130  | 281   | 849  |   | 31 822                               |        |
| TOTAL-WHITFORD                               | 3 112   |                          |                         | 2 120  | 313   | 1 807  |   | 67 680                               |        |
| <b>WIDEWATER 073-08W5</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WIDEWATER                              | 276   |                          |                         | 192  |   | 192  |   | 7 301                                |        |
| <b>WILD HORSE CREEK 031-10W5</b>             |   |                          |                         |  |   |  |   |                                      |        |
| RUNDLE A                                     | 2 084   | 0.45                     | 0.20                    | 750  | 585   | 165  | 38  | 6 239                                | 668    |
| TOTAL-WILD HORSE CREEK                       | 2 084   |                          |                         | 750  | 585   | 165  |   | 6 239                                |        |
| <b>WILD RIVER 056-24W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| WABAMUN A                                    | 656   | 0.85                     | 0.10                    | 502  |   | 502  | 38  | 19 166                               | 64     |
| IRETON A                                     | 627   | 0.90                     | 0.05                    | 536  |   | 536  | 37  | 20 062                               | 200    |
| LEDUC 16-056-23                              | 836   | 0.80                     | 0.05                    | 635  |   | 635  | 37  | 23 533                               | 200    |
| OTHER  | 1 580   |                          |                         | 1 087  |   | 1 087  |   | 42 072                               |        |
| TOTAL-WILD RIVER                             | 3 699   |                          |                         | 2 760  |   | 2 760  |   | 104 833                              |        |
| <b>WILDCAT HILLS 027-06W5</b>                |   |                          |                         |  |   |  |   |                                      |        |
| RUNDLE A                                     | 29 412  | 0.88                     | 0.15                    | 22 000   | 14 519  | 7 481  | 39a   | 291 235                              | 4 062  |
| TOTAL-WILDCAT HILLS                          | 29 412  |                          |                         | 22 000   | 14 519  | 7 481  |   | 291 235                              |        |
| <b>WILDMERE 048-05W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WILDMERE                               | 6 775   |                          |                         | 4 506  | 794   | 3 712  |   | 134 205                              |        |
| <b>WILDUNN CREEK 029-14W4</b>                |   |                          |                         |  |   |  |   |                                      |        |
| VIKING B                                     | 619   | 0.70                     | 0.05                    | 411  | 140   | 271  | 39a   | 10 450                               | 2 158  |
| OTHER  | 313   |                          |                         | 182  | 89  | 93   |   | 3 594                                |        |
| TOTAL-WILDUNN CREEK                          | 932   |                          |                         | 593  | 229   | 364  |   | 14 044                               |        |
| <b>WILDWOOD 054-09W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WILDWOOD                               | 468   |                          |                         | 320  |   | 320  |   | 12 197                               |        |
| <b>WILKINS 042-08W4</b>                      |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WILKINS                                | 154   |                          |                         | 102  |   | 102  |   | 3 857                                |        |
| <b>WILLESSEN GREEN 042-07W5</b>              |   |                          |                         |  |   |  |   |                                      |        |
| BELLY RIVER J SOLN                           | 9   | 0.60                     | 0.40                    | 3b   |   |  | 40  |                                      |        |
| BELLY RIVER J ASSOC                          | 563   | 0.80                     | 0.10                    | 405b   | 46b   | 362  | 40  | 14 498                               | 1 080  |
| BELLY RIVER E                                | 774   | 0.80                     | 0.10                    | 557  |   | 557  | 40  | 22 308                               | 1 451  |
| CARDIUM A ASSOC                              | 907   | 0.85                     | 0.10                    | 694b   |   |  | 39a   |                                      | 3 934  |
| CARDIUM A ASSOC                              | 958   | 0.85                     | 0.10                    | 733b   |   |  | 39a   |                                      | 4 552  |
| CARDIUM A PRIMARY SOLN                       | 2 816   | 0.70                     | 0.45                    | 1 084b   |   |  | 39a   |                                      |        |
| CARDIUM A WATERFLOOD SOLN                    | 12 030  | 0.27                     | 0.60                    | 1 300b   |   |  | 39a   |                                      |        |
| CARDIUM A MISCIBLE SOLN                      | 6 266   | 0.48                     | 0.54                    | 1 384b   |   |  | 39a   |                                      |        |
| CARDIUM A TOTAL                              | 22 977  | 0.45                     | 0.45                    | 5 195b   | 1 996b  | 3 199  | 39a   | 124 537                              |        |
| VIKING A SOLN                                | 730   | 0.65                     | 0.40                    | 285b   |   |  | 37  |                                      |        |
| VIKING A ASSOC                               | 512   | 0.70                     | 0.15                    | 304b   | 151b  | 438  | 37  | 16 394                               | 1 076  |
| GLAUCONITIC C                                | 6 984   | 0.70                     | 0.10                    | 4 400  | 48  | 4 352  | 41  | 179 215                              | 8 260  |
| LOWER MANVILLE33-043-06                      | 459   | 0.90                     | 0.15                    | 351  |   | 351  | 41  | 14 454                               | 200    |
| ELLERSLIE G                                  | 2 444   | 0.50                     | 0.10                    | 1 100  | 1   | 1 099  | 40  | 44 433                               | 2 230  |
| OTHER  | 6 534   |                          |                         | 3 974  | 290   | 3 684  |   | 148 992                              |        |
| TOTAL-WILLESSEN GREEN                        | 41 986  |                          |                         | 16 574   | 2 532   | 14 042   |   | 564 831                              |        |
| <b>WILLINGDON 055-15W4</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 424   | 0.80                     | 0.05                    | 322  |   |  | 37  |                                      | 10 815 |



| 10                           | 11                               | 12                           | 13                                  | 14                   | 15                               | 16                                   | 17                                       | 18                                   | 19                                   | 20  |
|------------------------------|----------------------------------|------------------------------|-------------------------------------|----------------------|----------------------------------|--------------------------------------|--|--------------------------------------|--------------------------------------|---|
| AVERAGE<br>PAT<br>THICKNESS  | FORGITE                          | SS<br>LITH                   | INITIAL<br>Pore Pressure            | TIME<br>(min)        | INITIAL<br>Pore Pressure         | MAX. AAS<br>RELATIVE<br>(A/N/L)      | MEAN<br>CORROSION<br>DEPTH               | EST<br>YR                            | EST<br>LAST<br>REVIEW                | EXPLANATION AND REMARKS   |
| m                            | mm                               | mm                           | kPa                                 | min                  | mm                               | mm                                   | m  |                                      |                                      |   |
| 1.93<br>1.83                 | 0.176<br>0.190                   | 0.65<br>0.65                 | 7 860<br>7 440                      | 30<br>40             | 0.870<br>0.866                   | 0.56<br>0.53                         | 844.0<br>870.9                           | 1951<br>1950                         | 1980<br>1985                         | A6S PANALIA TCPL  |
| 3.26<br>3.51                 | 0.190<br>0.210                   | 0.65<br>0.70                 | 7 540<br>9 860                      | 35<br>40             | 0.860<br>0.820                   | 0.61<br>0.58                         | 877.6<br>997.3                           | 1950<br>1950                         | 1985<br>1973                         | A6S CANONGUL TCPL<br>A6S CANONGUL TCPL<br>NUL CANONGUL PANALIA  |
| 1.23                         | 0.260                            | 0.55                         | 4 240                               | 18                   | 0.912                            | 0.59                                 | 468.2                                    | 1949                                 | 1984                                 | CANONGUL PANALIA TCPL PART OF VIK POOL NO. 6  |
| 26.69                        | 0.077                            | 0.85                         | 21 720                              | 62                   | 0.861                            | 0.67                                 | 2 164.5                                  | 1960                                 | 1984                                 | A6S TCPL MATERIAL BALANCE TOP/BASE TVD  |
| 127.10<br>10.18<br>27.00     | 0.036<br>0.140<br>0.070          | 0.80<br>0.90<br>0.80         | 42 540<br>37 820<br>40 600          | 127<br>138<br>110    | 1.080<br>1.070<br>1.091          | 0.71<br>0.57<br>0.57                 | 3 611.3<br>3 950.2<br>4 172.1            | 1968<br>1972<br>1980                 | 1953<br>1976<br>1982                 |   |
| 43.30                        | 0.073                            | 0.85                         | 26 960                              | 84                   | 0.912                            | 0.70                                 | 2 982.0                                  | 1958                                 | 1984                                 | A6S CANONGUL MATERIAL BALANCE TOP/BASE TVD  |
| 2.29                         | 0.251                            | 0.60                         | 7 790                               | 33                   | 0.871                            | 0.58                                 | 948.1                                    | 1953                                 | 1981                                 | KANNGAZ TCPL  |
| 4.63<br>6.12<br>1.88<br>2.92 | 0.150<br>0.145<br>0.112<br>0.095 | 0.75<br>0.50<br>0.50<br>0.35 | 9 130<br>10 550<br>20 170<br>19 830 | 41<br>46<br>58<br>58 | 0.878<br>0.782<br>0.791<br>0.786 | 0.66<br>0.66<br>0.70<br>0.73<br>0.75 | 1 532.2<br>1 548.2<br>1 785.3<br>1 881.0 | 1972<br>1972<br>1959<br>1954<br>1954 | 1984<br>1984<br>1985<br>1985<br>1984 | CONCURRENT PRODUCTION NUL DELETED<br>CONCURRENT PRODUCTION NUL DELETED<br>A6S<br>CONCURRENT PRODUCTION                                  |
| 2.49                         | 0.126                            | 0.80                         | 17 170                              | 63                   | 0.766                            | 0.77                                 | 2 311.1                                  | 1956                                 | 1985                                 | A6S PROGAS TCPL CONCURRENT PRODUCTION<br>A6S KANNGAZ PROGAS TCPL CONCURRENT PRODUCTION<br>A6S KANNGAZ PROGAS TCPL CONCURRENT PRODUCTION |
| 5.60<br>11.10<br>4.89        | 0.100<br>0.120<br>0.110          | 0.65<br>0.80<br>0.80         | 25 500<br>21 210<br>24 980          | 85<br>68<br>63       | 0.872<br>0.822<br>0.830          | 0.73<br>0.73<br>0.75                 | 2 367.3<br>2 245.5<br>2 336.2            | 1978<br>1975<br>1964                 | 1985<br>1978<br>1985                 | KANNGAZ PROGAS TCPL<br>PANALIA  |
| 0.90                         | 0.189                            | 0.50                         | 4 310                               | 19                   | 0.911                            | 0.60                                 | 510.8                                    | 1949                                 | 1983                                 | PART OF VIK POOL NO. 6  |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9      |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|--------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA   |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |        |
| <b>WILLINGDON 055-15W4<br/>(CONTINUED)</b>   |   |                          |                         |  |   |  |   |                                      |        |
| VIKING B                                     | 8   | 0.75                     | 0.05                    | 6  |   |  | 37  |                                      | 200    |
| VIKING A & B TOTAL                           | 432   | 0.80                     | 0.05                    | 328  | 118   | 210  | 37  | 7 703                                |        |
| OTHER  | 5 404   |                          |                         | 3 497  | 1 460   | 2 037  |   | 75 481                               |        |
| TOTAL-WILLINGDON                             | 5 836   |                          |                         | 3 825  | 1 578   | 2 247  |   | 83 184                               |        |
| <b>WILLOW 028-17W4</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WILLOW                                 | 524   |                          |                         | 359  | 124   | 235  |   | 9 008                                |        |
| <b>WILSON CREEK 043-04W5</b>                 |   |                          |                         |  |   |  |   |                                      |        |
| PEKISKD A                                    | 1 051   | 0.85                     | 0.10                    | 803  | 434   | 369  | 42a   | 15 468                               | 2 397  |
| BANFF A                                      | 499   | 0.90                     | 0.10                    | 406  | 26  | 380  | 42a   | 15 930                               | 440    |
| OTHER  | 167   |                          |                         | 119  | 2   | 117  |   | 4 833                                |        |
| TOTAL-WILSON CREEK                           | 1 717   |                          |                         | 1 328  | 462   | 866  |   | 36 231                               |        |
| <b>WIMBORNE 034-26W4</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| D-3 A SOLN                                   | 3 090   | 0.27                     | 0.32                    | 567 <sup>b</sup>   |   |  | 37a   |                                      |        |
| D-3 A ASSOC                                  | 10 196  | 0.85                     | 0.25                    | 6 500 <sup>b</sup>   | 4 776 <sup>b</sup>  | 2 291  | 37a   | 85 752                               | 5 984  |
| OTHER  | 1 402   |                          |                         | 741  | 180   | 561  |   | 21 955                               |        |
| TOTAL-WIMBORNE                               | 14 688  |                          |                         | 7 808  | 4 956   | 2 852  |   | 107 707                              |        |
| <b>WINAGAMI 077-18W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WINAGAMI                               | 60  |                          |                         | 40   |   | 40   |   | 1 497                                |        |
| <b>WINCHELL COULEE 029-06W5</b>              |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WINCHELL COULEE                        | 53  |                          |                         | 35   |   | 35   |   | 1 310                                |        |
| <b>WINDFALL 060-15W5</b>                     |   |                          |                         |  |   |  |   |                                      |        |
| VIKING A                                     | 507   | 0.80                     | 0.05                    | 385  | 6   | 379  | 39  | 14 614                               | 3 242  |
| RUNDLE C                                     | 551   | 0.85                     | 0.10                    | 417  | 172   | 245  | 40  | 9 905                                | 3 411  |
| WINTERBURN 23-060-16                         | 630   | 0.80                     | 0.10                    | 454  |   | 454  | 42  | 19 032                               | 128    |
| D-3 A SOLN                                   | 3 427   | 0.40                     | 0.35                    | 891 <sup>b</sup>   |   |  | 40a   |                                      |        |
| D-3 A ASSOC                                  | 19 211  | 0.87                     | 0.30                    | 11 700 <sup>b</sup>  | 4 932 <sup>b</sup>  | 7 659  | 40a   | 309 653                              | 4 595  |
| OTHER  | 3 988   |                          |                         | 2 609  | 557   | 2 052  |   | 83 438                               |        |
| TOTAL-WINDFALL                               | 28 314  |                          |                         | 16 456   | 5 667   | 10 789   |   | 436 642                              |        |
| <b>WINDY 049-04W4</b>                        |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WINDY                                  | 130   |                          |                         | 81   | 6   | 75   |   | 2 666                                |        |
| <b>WINEFRED (SA) 078-03W4</b>                |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WINEFRED                               | 69  |                          |                         | 33   |   | 33   |   | 1 248                                |        |
| <b>WINTERING HILLS 025-17W4</b>              |   |                          |                         |  |   |  |   |                                      |        |
| MILK RIVER A                                 | 1 940   | 0.70                     | 0.05                    | 1 290  |   |  | 36a   |                                      | 22 242 |
| MEDICINE HAT A                               | 5 862   | 0.70                     | 0.03                    | 3 980  |   |  | 36  |                                      | 55 734 |
| SE ALTA GAS SYS(MU) TOTAL                    | 7 802   | 0.70                     | 0.05                    | 5 270  | 130   | 5 140  | 36a   | 186 633                              |        |
| ELLERSLIE A ASSOC                            | 1 698   | 0.80                     | 0.05                    | 1 290  | 49  | 1 241  | 41  | 50 633                               | 3 535  |
| OTHER  | 4 803   |                          |                         | 3 165  | 861   | 2 304  |   | 91 958                               |        |
| TOTAL-WINTERING HILLS                        | 14 303  |                          |                         | 9 725  | 1 040   | 8 685  |   | 329 224                              |        |
| <b>WIZARD LAKE 048-27W4</b>                  |   |                          |                         |  |   |  |   |                                      |        |
| D-3 A SOLN                                   | 6 758   | 0.95                     | 0.13                    | 5 585  | 4 768   | 817  | 47  | 38 227                               |        |
| OTHER  | 1 002   |                          |                         | 647  | -5 867  | 6 514  |   | 303 274                              |        |
| TOTAL-WIZARD LAKE                            | 7 760   |                          |                         | 6 232  | -1 099  | 7 331  |   | 341 501                              |        |
| <b>WOKING 075-05W6</b>                       |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WOKING                                 | 2 076   |                          |                         | 1 286  | 480   | 806  |   | 31 384                               |        |
| <b>WOLF 054-16W5</b>                         |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WOLF                                   | 181   |                          |                         | 118  |   | 118  |   | 4 417                                |        |
| <b>WOLF SOUTH 051-15W5</b>                   |   |                          |                         |  |   |  |   |                                      |        |
| ROCK CREEK 11-051-15                         | 603   | 0.80                     | 0.05                    | 458  |   | 458  | 40  | 18 343                               | 200    |
| OTHER  | 296   |                          |                         | 198  |   | 198  |   | 7 872                                |        |
| TOTAL-WOLF SOUTH                             | 899   |                          |                         | 656  |   | 656  |   | 26 215                               |        |
| <b>WOLVERINE 098-06W5</b>                    |   |                          |                         |  |   |  |   |                                      |        |
| TOTAL-WOLVERINE                              | 170   |                          |                         | 100  |   | 100  |   | 3 965                                |        |



| 10                          | 11                      | 12                   | 13                         | 14             | 15                      | 16                             | 17                            | 18                           | 19                           | 20  |
|-----------------------------|-------------------------|----------------------|----------------------------|----------------|-------------------------|--------------------------------|-------------------------------|------------------------------|------------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | PERCENT                 | GAS<br>SATN          | INITIAL<br>PRESSURE        | TIME           | FORMER                  | NEW GAS<br>RELATIVE<br>DENSITY | MEAN<br>FORMATION<br>DEPTH    | WELL<br>TYPE                 | DATE<br>LAST<br>SHUT-IN      | COMMENTS AND REMARKS  |
| m                           | PERC                    | FEET                 | KPA                        | HR             | FEET                    | FEET                           | M                             |                              |                              |   |
| 0.70                        | 0.230                   | 0.55                 | 4 420                      | 18             | 0.908                   | 0.19                           | 012.8                         | 1980<br>1949                 | 1980<br>1982                 | PART OF VIK POOL NO 6<br>PANALTA ICPL PART OF VIK POOL NO 6   |
| 5.67<br>12.74               | 0.059<br>0.067          | 0.75<br>0.75         | 19 270<br>18 170           | 81<br>74       | 0.871<br>0.842          | 0.68<br>0.69                   | 2 146.1<br>2 195.8            | 1960<br>1961                 | 1972<br>1973                 | AKS PANALTA ICPL<br>AKS   |
| 11.92                       | 0.080                   | 0.90                 | 20 750                     | 80             | 0.842                   | 0.82<br>0.82                   | 2 281.4                       | 1956<br>1956                 | 1980<br>1980                 | ICPL CONCURRENT PRODUCTION<br>ICPL CONCURRENT PRODUCTION  |
| 1.71<br>1.70<br>42.25       | 0.084<br>0.075<br>0.060 | 0.80<br>0.80<br>0.90 | 10 820<br>16 720<br>24 260 | 48<br>74<br>85 | 0.833<br>0.852<br>0.892 | 0.63<br>0.66<br>0.71<br>0.81   | 1 571.9<br>1 908.0<br>2 439.3 | 1955<br>1956<br>1978<br>1955 | 1978<br>1978<br>1982<br>1984 | PROGAS<br>PANALTA PROGAS<br>PROGAS<br>AKS PROGAS CONCURRENT PRODUCTION GAS<br>CICLING<br>AKS PROGAS CONCURRENT PRODUCTION GAS<br>CICLING  |
| 32.92                       | 0.063                   | 0.85                 | 26 100                     | 104            | 0.830                   | 0.81                           | 2 582.9                       | 1955                         | 1984                         |   |
| 3.45<br>2.43<br>4.49        | 0.154<br>0.170<br>0.182 | 0.55<br>0.55<br>0.55 | 3 140<br>4 310<br>9 690    | 16<br>17<br>38 | 0.938<br>0.913<br>0.829 | 0.58<br>0.57<br>0.65           | 355.7<br>481.7<br>1 173.6     | 1910<br>1904<br>1904<br>1963 | 1983<br>1980<br>1983<br>1981 | PART OF MILK RIV POOL NO.1 PRODUCTION<br>DECLINE<br>PART OF MILK RIV POOL NO.1<br>KANNALZ PROGAS ICPL PANALTA<br>KANNALZ PANALTA ICPL PART OF SURVEY POOL<br>NO.1 CONCURRENT PRODUCTION |
| 11.80                       | 0.150                   | 0.85                 | 21 230                     | 70             | 0.878                   | 0.59                           | 2 600.6                       | 1981                         | 1983                         |   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9     |
|--|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|-------|
|  | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA  |
|  | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |       |
| <b>WOOD RIVER 043-23W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| LOWER MANNVILLE B                            | 545   | 0.80                     | 0.10                    | 392  | 230   | 162  | 41  | 6 671                                | 394   |
| OTHER  | 3 128   |                          |                         | 1 946  | 242   | 1 704  |   | 68 203                               |       |
| TOTAL-WOOD RIVER                             | 3 673   |                          |                         | 2 338  | 472   | 1 866  |   | 74 874                               |       |
| <b>WOODEN HOUSE (SA) 087-22W4</b>            |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-WOODEN HOUSE                           | 266   |                          |                         | 121  |   | 121  |   | 4 826                                |       |
| <b>WOODLAND 060-19W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-WOODLAND                               | 270   |                          |                         | 171  |   | 171  |   | 6 615                                |       |
| <b>WOOLFORD (SA) 003-24W4</b>                |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-WOOLFORD                               | 53  |                          |                         | 22   |   | 22   |   | 823                                  |       |
| <b>WORKMAN (SA) 031-26W4</b>                 |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-WORKMAN                                | 30  |                          |                         | 15   |   | 15   |   | 572                                  |       |
| <b>WORSLEY 087-07W6</b>                      |   |                          |                         |  |   |  |   |                                      |       |
| D-3 A  | 761   | 0.85                     | 0.07                    | 600  | 514   | 86   | 36a   | 3 058                                | 1 367 |
| D-3 B  | 827   | 0.90                     | 0.07                    | 692  | 680   | 12   | 36a   | 427                                  | 1 726 |
| D-3 D  | 1 520   | 0.85                     | 0.07                    | 1 202  | 1 202   | < 1  | 36a   | -                                    | 440   |
| D-3 E  | 783   | 0.80                     | 0.05                    | 620  | 561   | 59   | 36a   | 2 098                                | 440   |
| D-3 G  | 1 800   | 0.40                     | 0.05                    | 685  | 685   | < 1  | 36a   | -                                    | 1 351 |
| D-3 I  | 394   | 0.85                     | 0.05                    | 318  | 67  | 251  | 36a   | 8 926                                | 200   |
| LEDUC 22-087-05                              | 518   | 0.90                     | 0.05                    | 443  |   | 443  | 36  | 15 753                               | 150   |
| <b>GRANITE WASH A</b>                        |   |                          |                         |  |   |  |   |                                      |       |
| OTHER  | 851   | 0.85                     | 0.10                    | 651  | 413   | 238  | 36  | 8 463                                | 128   |
| TOTAL-WORSLEY                                | 1 530   |                          |                         | 941  | 219   | 722  |   | 26 362                               |       |
|  | 8 984   |                          |                         | 6 152  | 4 341   | 1 811  |   | 65 087                               |       |
| <b>WRENTHAM 006-16W4</b>                     |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-WRENTHAM                               | 62  |                          |                         | 38   | 1   | 37   |   | 1 384                                |       |
| <b>WRDE (SA) 056-25W5</b>                    |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-WRDE                                   | 310   |                          |                         | 220  |   | 220  |   | 8 817                                |       |
| <b>YEKAU LAKE 052-26W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-YEKAU LAKE                             | 238   |                          |                         | 163  | 65  | 98   |   | 3 925                                |       |
| <b>YELLOWSTONE (SA) 071-13W5</b>             |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-YELLOWSTONE                            | 53  |                          |                         | 35   |   | 35   |   | 1 371                                |       |
| <b>YOUNGSTOWN 031-10W4</b>                   |   |                          |                         |  |   |  |   |                                      |       |
| TOTAL-YOUNGSTOWN                             | 706   |                          |                         | 462  | 23  | 439  |   | 16 851                               |       |
| <b>ZAMA 118-05W6</b>                         |   |                          |                         |  |   |  |   |                                      |       |
| SULPHUR POINT H                              | 434   | 0.85                     | 0.10                    | 332  |   | 332  | 39a   | 13 048                               | 507   |
| SULPHUR POINT I                              | 626   | 0.85                     | 0.15                    | 452  |   | 452  | 39a   | 17 764                               | 498   |
| OTHER  | 9 525   |                          |                         | 5 581  | 453   | 5 128  |   | 204 151                              |       |
| TOTAL-ZAMA                                   | 10 585  |                          |                         | 6 365  | 453   | 5 912  |   | 234 963                              |       |



| 10                          | 11         | 12          | 13                  | 14   | 15       | 16                             | 17                         | 18          | 19                      | 20  |
|-----------------------------|------------|-------------|---------------------|------|----------|--------------------------------|----------------------------|-------------|-------------------------|---|
| AVERAGE<br>PAY<br>THICKNESS | POREBILITY | GAS<br>SATN | INITIAL<br>PRESSURE | TIME | COMMENTS | RAW GAS<br>RELATIVE<br>DENSITY | ORIG<br>FORMATION<br>DEPTH | AGE<br>(YR) | DATE<br>LAST<br>REVISED | DESCRIPTION AND REMARKS                                   |
| m                           | frac       | frac        | kPa                 | hr   |          | frac                           | m                          |             |                         |   |
| 5.24                        | 0.156      | 0.70        | 10 470              | 51   | 0.893    | 0.10                           | 1 418.5                    | 1958        | 1979                    | TOPL MATERIAL BALANCE                                     |
| 8.53                        | 0.059      | 0.80        | 22 820              | 85   | 0.896    | 0.68                           | 2 253.1                    | 1960        | 1989                    | MATERIAL BALANCE  |
| 17.14                       | 0.063      | 0.80        | 22 380              | 83   | 0.903    | 0.65                           | 2 212.6                    | 1960        | 1984                    | WCOAST MATERIAL BALANCE                                   |
| 12.20                       | 0.099      | 0.80        | 21 330              | 83   | 0.894    | 0.73                           | 2 141.9                    | 1964        | 1980                    | WCOAST  |
| 12.50                       | 0.112      | 0.80        | 21 120              | 76   | 0.906    | 0.67                           | 2 325.3                    | 1966        | 1983                    | WCOAST MATERIAL BALANCE                                   |
| 13.76                       | 0.059      | 0.80        | 22 750              | 83   | 0.914    | 0.64                           | 2 221.1                    | 1959        | 1980                    |   |
| 11.90                       | 0.120      | 0.80        | 19 370              | 80   | 0.906    | 0.67                           | 2 232.1                    | 1973        | 1983                    |   |
| 19.70                       | 0.110      | 0.85        | 20 740              | 75   | 0.904    | 0.70                           | 2 124.9                    | 1984        | 1985                    | TOPL WCOAST PANALIA ASS TOPL PROGAS TOPL<br>KANGAZ PROGAS |
| 25.00                       | 0.176      | 0.85        | 20 340              | 91   | 0.894    | 0.65                           | 2 263.7                    | 1975        | 1982                    |   |
| 7.32                        | 0.104      | 0.85        | 12 820              | 56   | 0.838    | 0.66                           | 1 336.2                    | 1966        | 1969                    | PROGAS  |
| 14.08                       | 0.081      | 0.85        | 13 100              | 60   | 0.857    | 0.68                           | 1 353.9                    | 1968        | 1969                    | PROGAS<br>BER   |

TABLE 4-5

| FIELD AND/OR GAS STRIKE AREA<br>POOL OR ZONE          | 1   | 2                        | 3                       | 4  | 5   | 6  | 7   | 8                                    | 9    |
|---|---|--------------------------|-------------------------|--|---|--|---|--------------------------------------|------|
|   | RAW GAS   |                          |                         | MARKETABLE GAS   |   |  |   |                                      | AREA |
|   | INITIAL<br>VOLUME<br>IN PLACE<br>10 <sup>6</sup> m <sup>3</sup> | POOL<br>RECOVERY<br>frac | SURFACE<br>LOSS<br>frac | INITIAL<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | NET<br>CUMULATIVE<br>PRODUCTION<br>10 <sup>6</sup> m <sup>3</sup> | REMAINING<br>ESTABLISHED<br>RESERVES<br>10 <sup>6</sup> m <sup>3</sup> | GROSS<br>HEAT<br>VALUE<br>MJ/m <sup>3</sup> | REMAINING<br>ENERGY<br>CONTENT<br>TJ |      |
| TOTAL NON-CONFIDENTIAL<br>POOLS                       | 5 044 666   |                          |                         | 2 994 434  | 1 236 678   | 1 757 756  |   | 68 406 677                           |      |
| TOTAL CONFIDENTIAL POOLS                              | 15 876  |                          |                         | 10 499   |   | 10 499   |   | 407 633                              |      |
| PROVINCIAL TOTAL                                      | 5 060 542   |                          |                         | 3 004 933  | 1 236 678   | 1 768 255  |   | 68 814 310                           |      |
| ETHANES AND NGL RECOVERABLE<br>AT REPROCESSING PLANTS |   |                          |                         |  |   | 80 000   |   | 6 100 000                            |      |
| PROVINCIAL RESERVES MINUS<br>ETHANE AND NGL           |   |                          |                         |  |   | 1 688 255  |   | 62 714 310                           |      |
| WITHIN ECONOMIC REACH                                 | 4 975 091   |                          |                         | 2 954 632  | 1 236 678   | 1 717 954  |   | 66 862 075                           |      |
| BEYOND ECONOMIC REACH                                 | 85 451  |                          |                         | 50 301   |   | 50 301   |   | 1 952 235                            |      |
| ASSOCIATED<br>SOLUTION                                | 558 296<br>621 850  |                          |                         | 377 497 <sup>b</sup><br>194 379 <sup>b</sup>                         | 281 519 <sup>b</sup>  | 290 357  |   | 11 869 925                           |      |
| NON-ASSOCIATED  | 3 880 396   |                          |                         | 2 433 057  | 955 159   | 1 477 898  |   | 56 944 385                           |      |

a MEASURED HEATING VALUE.

b INCLUDES SOLUTION GAS PRODUCTION.

c POOL RECOVERY AND SURFACE LOSS CALCULATED ON AN ENERGY BASIS. SEE TABLE 4-2.

[illegible]











---

## 5 ETHANE CONTENT OF GAS

---

This chapter discusses the 1985 production of ethane and presents the Board's estimate of the total volume of ethane contained in the remaining established reserves of gas. Although the Board believes that ethane extraction at crude-oil refineries and at plants processing synthetic crude oil may become viable in the future and that ethane will be recovered from solvent-flood schemes, it has not attempted to estimate the prospective reserves from these sources. The effect on Alberta's remaining established reserves of marketable gas, of future ethane recovery at gas reprocessing plants is discussed in Chapter 4.

Ethane is defined in the Oil and Gas Conservation Act as "in addition to its normal scientific meaning, a mixture mainly of ethane which ordinarily may contain some methane or propane". Although the 1985 ethane recovery data conform with this definition, the ethane reserve estimates are calculated on the basis of ethane product assumed to be 100 per cent ethane.

Ethane volumes are given in the standard unit of cubic metres of ethane liquid at equilibrium pressure and 15 degrees Celsius. However, in Table 5-1, ethane reserves are also given in cubic metres of ethane gas at 101 325 kilopascals and 15 degrees Celsius. A conversion factor of 0.00388 cubic metres of ethane liquid per cubic metre of ethane gas is used.

### 5.1 ETHANE IN THE REMAINING ESTABLISHED RESERVES OF GAS

The Board has developed a computer file of compositional gas analyses, which has been used extensively in preparing the ethane reserve figures in this section. Where a gas analysis was not available for a particular pool, a field or area average for the zone was used.

As shown in Table 5-1, the ethane content in liquefied form of the total remaining established reserves of marketable gas is some 321 million cubic metres, some 198 million of which is in currently producing pools and the remaining 123 million in unconnected or deferred pools. Of the ethane content in unconnected pools, some 71 million cubic metres is in pools currently considered beyond economic reach and some 1.9 million in confidential pools.

For individual gas pools, the ethane content of marketable gas in Alberta, with few exceptions, falls within the range of 0.0025 mole/mole to 0.20 mole/mole. The 31 December 1985 volume-weighted average ethane content of all remaining established marketable gas is 0.051 mole/mole, as indicated in Table 5-1.

Although the remaining established reserves of gas have decreased as compared to last year's estimates, there has been a slight increase in ethane reserves as a result of improved gas analyses on some major pools.

### 5.2 ETHANE RECOVERED IN 1985

During 1985 there was a significant increase in ethane recovery at the ANGL Cochrane plant. In addition, 1985 was the first full year in which ethane was recovered at the Texaco Bonnie Glen plant, and the D. M. Wolcott Empress and Esso Judy Creek plants began ethane production in 1985. These increases in ethane production, however, were offset by declines in recovery at several other plants, resulting in an overall decrease in ethane recovery from 5623 thousand cubic metres in 1984 to 5468 thousand cubic metres in 1985.

**TABLE 5-1 ETHANE IN THE REMAINING ESTABLISHED  
RESERVES OF GAS  
As at 31 December 1985**

| Fields             | 1   | 2                              | 3                                    | 4                                       |
|--------------------|---|--------------------------------|--------------------------------------|---|
|                    | Remaining<br>Established<br>Reserves of<br>Marketable Gas | Ethane<br>Content <sup>a</sup> | Volume of Ethane                     |   |
|                    | 10 <sup>6</sup> m <sup>3</sup>                            | mol/mol                        | 10 <sup>6</sup> m <sup>3</sup> (gas) | 10 <sup>6</sup> m <sup>3</sup> (liquid) |
| Major Fields       |   |                                |                                      |   |
| Bonnie Glen        | 18 698  | 0.145                          | 2 714                                | 9.63                                    |
| Brazeau River      | 26 478  | 0.072                          | 1 896                                | 6.73                                    |
| Caroline           | 17 723  | 0.103                          | 1 823                                | 6.47                                    |
| Cranberry          | 10 281  | 0.099                          | 1 021                                | 3.62                                    |
| Crossfield         | 15 560  | 0.063                          | 987                                  | 3.50                                    |
| Edson              | 16 337  | 0.058                          | 954                                  | 3.39                                    |
| Elmworth           | 35 570  | 0.068                          | 2 424                                | 8.61                                    |
| Ferrier            | 12 257  | 0.088                          | 1 073                                | 3.81                                    |
| Garrington         | 11 455  | 0.094                          | 1 078                                | 3.83                                    |
| Gilby              | 12 506  | 0.092                          | 1 156                                | 4.10                                    |
| Harmattan East     | 19 459  | 0.085                          | 1 655                                | 5.88                                    |
| Harmattan-Elkton   | 19 800  | 0.088                          | 1 741                                | 6.18                                    |
| Jumping Pound West | 32 357  | 0.041                          | 1 311                                | 4.65                                    |
| Karr               | 10 933  | 0.089                          | 971                                  | 3.45                                    |
| Kaybob South       | 36 150  | 0.123                          | 4 454                                | 15.81                                   |
| Leduc-Woodbend     | 14 427  | 0.122                          | 1 755                                | 6.23                                    |
| Medicine River     | 12 345  | 0.097                          | 1 196                                | 4.25                                    |
| Pembina            | 28 471  | 0.085                          | 2 407                                | 8.54                                    |
| Rainbow            | 15 404  | 0.084                          | 1 297                                | 4.60                                    |
| Ricinus            | 18 441  | 0.087                          | 1 596                                | 5.67                                    |
| Sylvan Lake        | 14 289  | 0.100                          | 1 433                                | 5.09                                    |
| Valhalla           | 11 517  | 0.077                          | 889                                  | 3.16                                    |
| Wapiti             | 16 448  | 0.069                          | 1 128                                | 4.00                                    |
| Waterton           | 23 197  | 0.049                          | 1 127                                | 4.00                                    |
| Westrose South     | 15 716  | 0.093                          | 1 465                                | 5.20                                    |
| Willesden Green    | 14 060  | 0.103                          | 1 452                                | 5.15                                    |
| Wizard Lake        | 7 363   | 0.162                          | 1 194                                | 4.24                                    |
| Subtotal           | 487 242   | 0.087                          | 42 197                               | 150                                     |

TABLE 5-1 (continued)

| Fields  | 1   | 2                              | 3                                    | 4                                       |
|---|---|--------------------------------|--------------------------------------|---|
|   | Remaining<br>Established<br>Reserves of<br>Marketable Gas | Ethane<br>Content <sup>a</sup> | Volume of Ethane                     |   |
|   | 10 <sup>6</sup> m <sup>3</sup>                            | mol/mol                        | 10 <sup>6</sup> m <sup>3</sup> (gas) | 10 <sup>6</sup> m <sup>3</sup> (liquid) |
| Fields with over<br>1.50 x 10 <sup>9</sup> m <sup>3</sup> of<br>remaining established<br>marketable gas but<br>under 3.0 x 10 <sup>6</sup> m <sup>3</sup> of<br>ethane reserves | 987 419   | 0.037                          | 36 701                               | 130                                     |
| Subtotal  | 1 474 661   | 0.054                          | 78 898                               | 280                                     |
| All other remaining<br>established reserves<br>of marketable gas  | 293 594   | 0.040                          | 11 632                               | 41                                      |
| Total   | 1 768 255   | 0.051                          | 90 530<br>(3 213) <sup>b</sup>       | 321<br>(2 030) <sup>c</sup>             |

<sup>a</sup> Volume-weighted average. In several fields, ethane is extracted at field plants such that the actual ethane content of marketable gas from these fields is substantially less than this calculated content.

<sup>b</sup> Imperial equivalent in billions of cubic feet.

<sup>c</sup> Imperial equivalent in millions of barrels.











## 6 RESERVES OF NATURAL GAS LIQUIDS

Natural gas liquids are defined in the Oil and Gas Conservation Act as "propane, butanes, or pentanes plus, or a combination of them, obtained from the processing of raw gas or condensate". For the purposes of this report, condensate recovered in stock tanks and marketed without processing is included in the reserves of pentanes plus. Also included in the pentanes plus category are higher-vapour-pressure products that contain substantial quantities of butanes recovered at several plants throughout the province.

The Board estimates the remaining established reserves of natural gas liquids in the province as at 31 December 1985 to be 316.1 million cubic metres. Natural gas liquids from most unconnected and deferred pools were not included in reports issued before 1981. Thus, the 1981 and subsequent-year reserve additions should not be compared directly with additions shown in pre-1981 reports. The changes in the reserves during the past year are tabulated below:

|  | Established Reserves <sup>a</sup>       |                    |                      |                      |
|--|---|--------------------|----------------------|----------------------|
|  | 10 <sup>6</sup> m <sup>3</sup> (liquid) |                    |                      |                      |
|  | Propane                                 | Butanes            | Pentanes Plus        | Total                |
| Remaining at 31 December 1984                              | 126.5                                   | 71.8               | 124.9                | 323.2                |
| Additions during 1985                                      | 4.6                                     | 1.7                | 1.0                  | 7.3                  |
| Less net production <sup>b</sup> during 1985               | 5.5                                     | 3.1                | 5.8                  | 14.4                 |
| Remaining at 31 December 1985                              | 125.6                                   | 70.4               | 120.1                | 316.1                |
|  | (791) <sup>c</sup>                      | (443) <sup>c</sup> | (756) <sup>c</sup>   | (1 991) <sup>c</sup> |
| Cumulative net production <sup>b</sup> to 31 December 1985 | 91.4                                    | 57.7               | 152.9                | 302.0                |
| Initial established reserves at 31 December 1985           | 217.0                                   | 128.1              | 273.0                | 618.1                |
|  | (1 367) <sup>c</sup>                    | (807) <sup>c</sup> | (1 718) <sup>c</sup> | (3 892) <sup>c</sup> |

The remaining established reserves of natural gas liquids consist of liquids that are expected to be extracted from the province's remaining established reserves of raw gas. The liquids recoverable from pools currently producing and connected to gas processing plants were generally determined using remaining recoverable raw-gas reserves, a raw-gas analysis, and the current plant recovery efficiency for each component. For retrograde condensate pools where dry gas is cycled, product recoveries have been determined from individual reservoir studies having regard for anticipated future cycling and blowdown operations.

For those pools not currently connected or on production, the Board estimated whether or not the gas would be processed for liquid recovery and, if so, the recovery efficiency for each component. This estimate was made on a broad judgement basis having regard for the gas composition in those pools. Confidential reserves and those considered beyond economic reach are included in the unconnected-reserve category.

The natural gas liquid reserves recoverable at reprocessing plants have been estimated by multiplying the remaining marketable gas reserves by the historic ratio of liquid production to marketable gas production. This assumes that both the liquid content of marketable gas and the portion of marketable gas to be reprocessed will remain constant. The Board believes that the approach gives a reasonable indication of the natural gas liquids recoverable at reprocessing plants.

<sup>a</sup> Discrepancies are due to rounding.

<sup>b</sup> Net production means production less those volumes returned to the formation or injected to enhance the recovery of oil.

<sup>c</sup> Imperial equivalent in millions of barrels.

The Board has also estimated the reserves of natural gas liquids being injected as solvent into several pools throughout the province to enhance oil recovery. Pool recovery factors based on Board studies were used to estimate the portion of such solvent recoverable from each pool. Plant recovery factors of 85 per cent for propane, 95 per cent for butanes, and 100 per cent for pentanes plus were then applied to the pool recoveries to determine the reserves of natural gas liquids recoverable from solvent-flood schemes. A re-evaluation of both the injected and reproduced solvent volumes has resulted in changes in the Board's estimates of volumes recoverable from solvent floods. The 1985 estimates of natural gas liquids "Recoverable from Solvent Floods" (as stated at the end of Table 6-1) exclude volumes contained in push gas as these volumes are included under the individual pool reserve estimates.

The Board's current estimates of the remaining established reserves of natural gas liquids are detailed in Table 6-1. Fields containing 800 000 cubic metres or more of recoverable liquids are listed individually and those containing less are grouped under the "Beyond Economic Reach", "Confidential", and "Other Small Reserves" categories. Provincial reserves recoverable at reprocessing plants and from solvent-flood schemes are not included in the reserves for the individual pools but are shown as totals at the end of the table.

During 1985, the Board re-evaluated the liquid-recovery ratios and the remaining established reserves of gas in several pools, which resulted in changes in the remaining established reserves of natural gas liquids. The most significant change was an increase in the remaining established reserves of natural gas liquids of the Brazeau River Field, due to a new gas cycling scheme. Significant changes also occurred in remaining established reserves of natural-gas liquids of the Valhalla, Wembley, and Waterton fields. Decreases, due primarily to production, exceeded increases resulting in an overall net reduction in remaining established reserves of natural gas liquids, compared to 1984 levels.

The following is a breakdown of the liquid reserves into connected and unconnected categories. These reserves exclude volumes recoverable at reprocessing plants and from solvent-flood production.

| <b>Remaining Established Reserves As at 31 December 1985</b> |                       |                       |                             |                     |
|--|-----------------------|-----------------------|-----------------------------|---------------------|
| <b>10<sup>6</sup> m<sup>3</sup> (liquid)</b>                 |                       |                       |                             |                     |
|  | <b><u>Propane</u></b> | <b><u>Butanes</u></b> | <b><u>Pentanes Plus</u></b> | <b><u>Total</u></b> |
| Connected  | 39.2                  | 28.5                  | 66.8                        | 134.5               |
| Unconnected  | 32.3                  | 19.4                  | 43.4                        | 95.1                |
| Total  | <u>71.5</u>           | <u>47.9</u>           | <u>110.2</u>                | <u>229.6</u>        |

During 1985, propane and butane recovery at crude-oil refineries was 324.6 and 424.5 thousand cubic metres, respectively. Although propane and butanes are potentially recoverable at other crude-oil refineries and from processing crude bitumen, the Board has not attempted to estimate the prospective reserves from those sources.

**TABLE 6-1 REMAINING ESTABLISHED RESERVES OF NATURAL GAS LIQUIDS**  
**As at 31 December 1985**

|               | 1                       | 2   | 3   | 4       | 5                | 6  | 7       | 8                | 9      |
|---------------|-------------------------|---|---|---------|------------------|--|---------|------------------|--------|
| Field         | Zone                    | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |        |
|               |                         |   | Propane   | Butanes | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total  |
|               |                         | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |         |                  | 10 <sup>3</sup> m <sup>3</sup>                           |         |                  |        |
| Bigoray       | Cardium                 | 42  | 190   | 214     | 333              | 8  | 9       | 14               | 31     |
|               | Mannville               | 2 289   | 87  | 42      | 130              | 198  | 95      | 297              | 590    |
|               | Jurassic                | 424   | 108   | 64      | 113              | 46   | 27      | 48               | 121    |
|               | Mississippian           | 468   | 32  | 17      | 38               | 15   | 8       | 18               | 41     |
|               | Winterburn              | 288   | 406   | 198     | 108              | 117  | 57      | 31               | 205    |
|               | Subtotal                |   |   |         |                  | 384  | 196     | 408              | 988    |
| Bigstone      | Dunvegan                | 3 220   | 143   | 67      | 72               | 461  | 215     | 231              | 907    |
|               | Mannville               | 160   | —   | —       | 44               | —  | —       | 7                | 7      |
|               | Wabamun                 | 115   | 165   | 113     | 209              | 19   | 13      | 24               | 56     |
|               | Subtotal                |   |   |         |                  | 480  | 228     | 262              | 970    |
| Bonnie Glen   | Cardium                 | 97  | 41  | 134     | 82               | 4  | 13      | 8                | 25     |
|               | Mannville               | 2 269   | 58  | 41      | 24               | 132  | 93      | 54               | 279    |
|               | Winterburn              | 195   | 113   | 56      | 41               | 22   | 11      | 8                | 41     |
|               | Leduc <sup>a</sup>      | 16 120  | —   | —       | —                | 1 413  | 1 115   | 2 416            | 4 944  |
|               | Subtotal                |   |   |         |                  | 1 571  | 1 232   | 2 486            | 5 289  |
| Brazeau River | Cretaceous              | 1 677   | 222   | 114     | 261              | 373  | 192     | 438              | 1 003  |
|               | Jurassic                | 1 437   | 152   | 84      | 127              | 218  | 121     | 182              | 521    |
|               | Mississippian           | 15 329  | —   | —       | 61               | —  | —       | 935              | 935    |
|               | Winterburn <sup>a</sup> | 7 959   | —   | —       | —                | 1 255  | 1 285   | 7 427            | 9 967  |
|               | Subtotal                |   |   |         |                  | 1 846  | 1 598   | 8 982            | 12 426 |
| Caroline      | Cardium                 | 742   | 119   | 84      | 111              | 88   | 62      | 82               | 232    |
|               | Viking                  | 1 484   | 73  | 71      | 94               | 108  | 105     | 140              | 353    |
|               | Mannville               | 14 336  | 98  | 67      | 229              | 1 409  | 961     | 3 281            | 5 651  |
|               | Jurassic                | 81  | 123   | 74      | 111              | 10   | 6       | 9                | 25     |
|               | Mississippian           | 901   | 60  | 60      | 172              | 54   | 54      | 155              | 263    |
|               | Leduc                   | 155   | 110   | 97      | 148              | 17   | 15      | 23               | 55     |
|               | Subtotal                |   |   |         |                  | 1 686  | 1 203   | 3 690            | 6 579  |
| Carrot Creek  | Cardium                 | 316   | 70  | 51      | 70               | 22   | 16      | 22               | 60     |
|               | Mannville               | 2 003   | 95  | 64      | 72               | 190  | 128     | 145              | 463    |
|               | Jurassic                | 1 737   | 136   | 77      | 111              | 237  | 133     | 192              | 562    |
|               | Subtotal                |   |   |         |                  | 449  | 277     | 359              | 1 085  |



TABLE 6-1 (continued)

|              | 1                            | 2   | 3   | 4              | 5                | 6  | 7       | 8                | 9     |
|--------------|------------------------------|---|---|----------------|------------------|--|---------|------------------|-------|
|              |                              | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |                |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |       |
| Field        | Zone                         |   | Propane   | Butanes        | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total |
|              |                              | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |                |                  | 10 <sup>3</sup> m <sup>3</sup>                           |         |                  |       |
| Carson Creek | Beaverhill Lake <sup>a</sup> | 3 519   | —   | —              | —                | 169  | 2 301   | 151              | 1 550 |
|              | Subtotal                     |   |   |                |                  | 169  | 230     | 1 151            | 1 550 |
| Clive        | Viking                       | 263   | 87  | 49             | 80               | 23   | 13      | 21               | 57    |
|              | Mannville                    | 688   | 119   | 65             | 142              | 82   | 45      | 98               | 225   |
|              | Winterburn                   | 647   | 264   | 162            | 131              | 171  | 105     | 85               | 361   |
|              | Leduc                        | 688   | 267   | 208            | 375              | 184  | 143     | 258              | 585   |
|              | Subtotal                     |   |   |                |                  | 460  | 306     | 462              | 1 228 |
| Cranberry    | Beaverhill Lake              | 8 255   | 57  | 58             | 301              | 474  | 481     | 2 486            | 3 441 |
|              | Elk Point                    | 560   | —   | —              | 75               | —  | —       | 42               | 42    |
|              | Subtotal                     |   |   |                |                  | 474  | 481     | 2 528            | 3 483 |
| Crossfield   | Viking                       | 73  | 110   | 55             | 110              | 8  | 4       | 8                | 20    |
|              | Mannville                    | 1 066   | 92  | 65             | 116              | 98   | 69      | 124              | 291   |
|              | Mississippian <sup>a</sup>   | 10 959  | —   | —              | —                | 839  | 726     | 1 428            | 2 993 |
|              | Wabamun                      | 3 408   | 6   | 6              | 20               | 19   | 21      | 67               | 107   |
|              | Subtotal                     |   |   |                |                  | 964  | 820     | 1 627            | 3 411 |
| Dunvegan     | Mississippian                | 14 735  | —   | —              | 59               | —  | —       | 871              | 871   |
|              | Subtotal                     |   |   |                |                  | —  | —       | 871              | 871   |
| Edson        | Cardium                      | 1 318   | 53  | 36             | 99               | 70   | 48      | 130              | 248   |
|              | 2nd White Specks             | 169   | 148   | 77             | 136              | 25   | 13      | 23               | 61    |
|              | Viking                       | 2 488   | —   | —              | 52               | —  | —       | 130              | 130   |
|              | Mannville                    | 3 155   | 81  | 40             | 94               | 254  | 125     | 295              | 674   |
|              | Jurassic                     | 485   | 113   | 47             | 31               | 55   | 23      | 15               | 93    |
|              | Mississippian                | 8 486   | —   | —              | 39               | —  | —       | 332              | 332   |
|              | Subtotal                     |   |   |                |                  | 404  | 209     | 925              | 1 538 |
| Elmworth     | Cadotte                      | 2 369   | —   | —              | 14               | —  | —       | 33               | 33    |
|              | Cardium                      | 192   | 156   | 78             | 57               | 30   | 15      | 11               | 56    |
|              | Mannville                    | 31 102  | — <sup>b</sup>  | — <sup>b</sup> | 41               | 25   | 8       | 1 266            | 1 299 |
|              | Jurassic                     | 956   | 4   | 2              | 40               | 4  | 2       | 38               | 44    |
|              | Subtotal                     |   |   |                |                  | 59   | 25      | 1 348            | 1 432 |

TABLE 6-1 (continued)

|                 | 1             | 2   | 3                     | 4       | 5                | 6  | 7       | 8                | 9     |
|-----------------|---------------|---|-----------------------|---------|------------------|--|---------|------------------|-------|
| Field           | Zone          | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |       |
|                 |               |   | Propane               | Butanes | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total |
|                 |               |   |                       |         |                  |  |         |                  |       |
|                 |               | 10 <sup>6</sup> m <sup>3</sup>                |                       |         |                  |  |         |                  |       |
| Fenn-Big Valley | Viking        | 345   | 32                    | 26      | 49               | 11   | 9       | 17               | 37    |
|                 | Mannville     | 257   | 74                    | 43      | 66               | 19   | 11      | 17               | 47    |
|                 | Winterburn    | 745   | 619                   | 314     | 115              | 461  | 234     | 86               | 781   |
|                 | Leduc         | 64  | 344                   | 156     | 63               | 22   | 10      | 4                | 36    |
|                 | Subtotal      |   |                       |         |                  | 513  | 264     | 124              | 901   |
| Ferrier         | Belly River   | 181   | 177                   | 83      | 17               | 32   | 15      | 3                | 50    |
|                 | Cardium       | 7 709   | 130                   | 89      | 115              | 1 005  | 689     | 883              | 2 577 |
|                 | Viking        | 297   | 114                   | 61      | 111              | 34   | 18      | 33               | 85    |
|                 | Mannville     | 2 533   | 54                    | 33      | 125              | 138  | 83      | 316              | 537   |
|                 | Jurassic      | 174   | 138                   | 69      | 63               | 24   | 12      | 11               | 47    |
|                 | Mississippian | 1 336   | 3                     | 1       | 162              | 4  | 2       | 216              | 222   |
| Subtotal        |               |   |                       |         | 1 237            | 819  | 1 462   | 3 518            |       |
| Fir             | Cardium       | 98  | 122                   | 61      | 71               | 12   | 6       | 7                | 25    |
|                 | Dunvegan      | 650   | 131                   | 63      | 142              | 85   | 41      | 92               | 218   |
|                 | Mannville     | 1 738   | 9                     | 4       | 158              | 15   | 7       | 274              | 296   |
|                 | Jurassic      | 733   | —                     | —       | 352              | —  | —       | 258              | 258   |
|                 | Triassic      | 5 807   | 10                    | 9       | 28               | 57   | 52      | 164              | 273   |
|                 | Mississippian | 163   | —                     | —       | 43               | —  | —       | 7                | 7     |
| Subtotal        |               |   |                       |         | 169              | 106  | 802     | 1 077            |       |
| Garrington      | Cardium       | 277   | 116                   | 87      | 242              | 32   | 24      | 67               | 123   |
|                 | Viking        | 1 372   | 95                    | 54      | 87               | 131  | 74      | 120              | 325   |
|                 | Mannville     | 5 208   | 125                   | 87      | 154              | 653  | 453     | 803              | 1 909 |
|                 | Jurassic      | 585   | 44                    | 22      | 120              | 26   | 13      | 70               | 109   |
|                 | Mississippian | 1 664   | 89                    | 61      | 119              | 148  | 101     | 198              | 447   |
|                 | Wabamun       | 1 730   | 117                   | 83      | 164              | 203  | 144     | 284              | 631   |
|                 | Leduc         | 413   | 111                   | 109     | 99               | 46   | 45      | 41               | 132   |
| Subtotal        |               |   |                       |         | 1 239            | 854  | 1 583   | 3 676            |       |
| Ghost Pine      | Viking        | 112   | 9                     | 9       | 45               | 1  | 1       | 5                | 7     |
|                 | Mannville     | 6 045   | 49                    | 36      | 51               | 295  | 220     | 306              | 821   |
|                 | Mississippian | 591   | 68                    | 46      | 51               | 40   | 27      | 30               | 97    |
|                 | Subtotal      |   |                       |         |                  | 336  | 248     | 341              | 925   |

TABLE 6-1 (continued)

|                  | 1                          | 2   | 3   | 4       | 5                | 6  | 7       | 8                | 9     |
|------------------|----------------------------|---|---|---------|------------------|--|---------|------------------|-------|
| Field            | Zone                       | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |       |
|                  |                            |   | Propane   | Butanes | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total |
|                  |                            | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |         |                  | 10 <sup>3</sup> m <sup>3</sup>                           |         |                  |       |
| Gilby            | Cardium                    | 442   | 172   | 113     | 269              | 76   | 50      | 119              | 245   |
|                  | Mannville                  | 5 600   | 92  | 56      | 81               | 514  | 313     | 456              | 1 283 |
|                  | Jurassic                   | 4 480   | 77  | 48      | 71               | 345  | 213     | 317              | 875   |
|                  | Mississippian              | 1 737   | 100   | 54      | 93               | 174  | 93      | 62               | 429   |
|                  | Wabamun                    | 52  | 135   | 58      | 58               | 7  | 3       | 3                | 13    |
|                  | Subtotal                   |   |   |         |                  | 1 116  | 672     | 1 057            | 2 845 |
| Gold Creek       | Upper Cretaceous           | 65  | 77  | 31      | 46               | 5  | 2       | 3                | 10    |
|                  | Mannville                  | 1 260   | 100   | 46      | 78               | 126  | 58      | 98               | 282   |
|                  | Triassic                   | 129   | 23  | 16      | 47               | 3  | 2       | 6                | 11    |
|                  | Wabamun                    | 2 350   | —   | —       | 413              | —  | —       | 971              | 971   |
|                  | Subtotal                   |   |   |         |                  | 134  | 62      | 1 078            | 1 274 |
| Golden Spike     | Viking                     | 115   | 104   | 61      | 104              | 12   | 7       | 12               | 31    |
|                  | Mannville                  | 387   | 88  | 52      | 62               | 34   | 20      | 24               | 78    |
|                  | Wabamun                    | 284   | 92  | 53      | 46               | 26   | 15      | 13               | 54    |
|                  | Winterburn                 | 128   | 102   | 55      | 47               | 13   | 7       | 6                | 26    |
|                  | Leduc <sup>a</sup>         | 688   | —   | —       | —                | 318  | 199     | 113              | 630   |
|                  | Subtotal                   |   |   |         |                  | 403  | 248     | 168              | 819   |
| Harmattan East   | Viking                     | 61  | 131   | 82      | 131              | 8  | 5       | 8                | 21    |
|                  | Mannville                  | 458   | 103   | 76      | 199              | 47   | 35      | 91               | 173   |
|                  | Mississippian <sup>a</sup> | 18 940  | —   | —       | —                | 332  | 228     | 577              | 1 137 |
|                  | Subtotal                   |   |   |         |                  | 387  | 268     | 676              | 1 331 |
| Harmattan-Elkton | Cardium                    | 51  | —   | —       | 59               | —  | —       | 3                | 3     |
|                  | Mannville                  | 64  | 109   | 63      | 94               | 7  | 4       | 6                | 17    |
|                  | Mississippian <sup>a</sup> | 19 610  | —   | —       | —                | 656  | 539     | 1 581            | 2 776 |
|                  | Subtotal                   |   |   |         |                  | 663  | 543     | 1 590            | 2 796 |
| Hussar           | Mannville                  | 8 777   | 81  | 53      | 58               | 710  | 466     | 505              | 1 681 |
|                  | Subtotal                   |   |   |         |                  | 710  | 466     | 505              | 1 681 |
| Judy Creek       | Viking                     | 457   | 33  | 24      | 77               | 15   | 11      | 35               | 61    |
|                  | Beaverhill Lake            | 1 840   | 370   | 200     | 167              | 681  | 368     | 307              | 1 356 |
|                  | Subtotal                   |   |   |         |                  | 696  | 379     | 342              | 1 417 |



TABLE 6-1 (continued)

|                       | 1                            | 2   | 3   | 4       | 5                | 6  | 7       | 8                | 9      |
|-----------------------|------------------------------|---|---|---------|------------------|--|---------|------------------|--------|
| Field                 | Zone                         | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |        |
|                       |                              |   | Propane   | Butanes | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total  |
|                       |                              | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |         |                  | 10 <sup>3</sup> m <sup>3</sup>                           |         |                  |        |
| Jumping Pound<br>West | Mississippian                | 32 356  | 29  | 29      | 89               | 934  | 938     | 2 890            | 4 762  |
|                       | Subtotal                     |   |   |         |                  | 934  | 938     | 2 890            | 4 762  |
| Karr                  | Upper Cretaceous             | 332   | —   | —       | 48               | —  | —       | 16               | 16     |
|                       | Mannville                    | 10 293  | 58  | 62      | 168              | 596  | 637     | 1 732            | 2 965  |
|                       | Jurassic                     | 52  | —   | —       | 96               | —  | —       | 5                | 5      |
|                       | Subtotal                     |   |   |         |                  | 596  | 637     | 1 753            | 2 986  |
| Kaybob                | Viking                       | 285   | 74  | 35      | 46               | 21   | 10      | 13               | 44     |
|                       | Mannville                    | 6 759   | 63  | 35      | 46               | 424  | 234     | 311              | 969    |
|                       | Wabamun                      | 18  | 111   | 111     | 167              | 2  | 2       | 3                | 7      |
|                       | Beaverhill Lake <sup>a</sup> | 2 696   | —   | —       | —                | 756  | 528     | 709              | 1 993  |
|                       | Subtotal                     |   |   |         |                  | 1 203  | 774     | 1 036            | 3 013  |
| Kaybob South          | Viking                       | 340   | 71  | 35      | 32               | 24   | 12      | 11               | 47     |
|                       | Mannville                    | 7 741   | 8   | 4       | 51               | 62   | 29      | 391              | 482    |
|                       | Jurassic                     | 175   | —   | —       | 103              | —  | —       | 18               | 18     |
|                       | Triassic                     | 1 928   | 117   | 70      | 85               | 225  | 134     | 163              | 522    |
|                       | Winterburn                   | 855   | 12  | 12      | 164              | 10   | 10      | 140              | 160    |
|                       | Beaverhill Lake <sup>a</sup> | 24 975  | —   | —       | —                | 1 163  | 2 033   | 7 127            | 10 323 |
|                       | Subtotal                     |   |   |         |                  | 1 484  | 2 218   | 7 850            | 11 552 |
| Leduc-Woodbend        | Cardium                      | 213   | 52  | 28      | 14               | 11   | 6       | 3                | 20     |
|                       | Viking                       | 198   | —   | —       | 35               | —  | —       | 7                | 7      |
|                       | Mannville                    | 4 341   | 115   | 58      | 57               | 498  | 253     | 246              | 997    |
|                       | Wabamun                      | 530   | 123   | 64      | 66               | 65   | 34      | 35               | 134    |
|                       | Winterburn                   | 436   | 278   | 154     | 213              | 121  | 67      | 93               | 281    |
|                       | Leduc                        | 8 542   | 98  | 102     | 52               | 839  | 870     | 445              | 2 154  |
|                       | Subtotal                     |   |   |         |                  | 1 534  | 1 230   | 829              | 3 593  |
| Leedale               | Belly River                  | 43  | 116   | 70      | 465              | 5  | 3       | 20               | 28     |
|                       | Mannville                    | 1 800   | 144   | 69      | 74               | 260  | 124     | 134              | 518    |
|                       | Jurassic                     | 183   | 142   | 77      | 98               | 26   | 14      | 18               | 58     |
|                       | Mississippian                | 1 834   | 165   | 85      | 182              | 302  | 155     | 333              | 790    |
|                       | Subtotal                     |   |   |         |                  | 593  | 296     | 505              | 1 394  |

TABLE 6-1 (continued)

|                       | 1             | 2   | 3   | 4       | 5                | 6  | 7       | 8                | 9     |
|-----------------------|---------------|---|---|---------|------------------|--|---------|------------------|-------|
| Field                 | Zone          | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |       |
|                       |               |   | Propane   | Butanes | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total |
|                       |               | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |         |                  | 10 <sup>3</sup> m <sup>3</sup>                           |         |                  |       |
| McLeod                | Cardium       | 654   | 34  | 18      | 73               | 22   | 12      | 48               | 82    |
|                       | Mannville     | 1 722   | 156   | 81      | 71               | 268  | 140     | 123              | 531   |
|                       | Winterburn    | 631   | 190   | 165     | 90               | 120  | 104     | 57               | 281   |
|                       | Subtotal      |   |   |         |                  | 410  | 256     | 228              | 894   |
| Medicine River        | Viking        | 97  | 165   | 113     | 72               | 16   | 11      | 7                | 34    |
|                       | Mannville     | 6 865   | 114   | 72      | 83               | 782  | 494     | 569              | 1 845 |
|                       | Jurassic      | 1 454   | 49  | 39      | 46               | 71   | 57      | 67               | 195   |
|                       | Mississippian | 3 571   | 104   | 56      | 47               | 371  | 200     | 168              | 739   |
|                       | Winterburn    | 5   | 400   | 200     | —                | 2  | 1       | —                | 3     |
|                       | Leduc         | 82  | 195   | 110     | 98               | 16   | 9       | 8                | 33    |
|                       | Subtotal      |   |   |         |                  | 1 258  | 772     | 819              | 2 849 |
| Minnehik-Buck<br>Lake | Belly River   | 468   | 38  | 13      | 17               | 18   | 6       | 8                | 32    |
|                       | Cardium       | 344   | 224   | 73      | 93               | 77   | 25      | 32               | 134   |
|                       | Mannville     | 717   | 70  | 35      | 63               | 50   | 25      | 45               | 120   |
|                       | Jurassic      | 218   | 60  | 28      | 46               | 13   | 6       | 10               | 29    |
|                       | Mississippian | 6 042   | 9   | 5       | 79               | 56   | 29      | 477              | 562   |
|                       | Subtotal      |   |   |         |                  | 214  | 91      | 572              | 877   |
| Mitsue                | Gilwood       | 1 221   | 482   | 296     | 152              | 589  | 362     | 185              | 1 136 |
|                       | Subtotal      |   |   |         |                  | 589  | 362     | 185              | 1 136 |
| Niton                 | Mannville     | 7 184   | 43  | 33      | 109              | 309  | 234     | 785              | 1 328 |
|                       | Jurassic      | 98  | 61  | 41      | 82               | 6  | 4       | 8                | 18    |
|                       | Subtotal      |   |   |         |                  | 315  | 238     | 793              | 1 346 |
| Paddle River          | Mannville     | 182   | 126   | 66      | 44               | 23   | 12      | 8                | 43    |
|                       | Jurassic      | 5 135   | 167   | 76      | 52               | 858  | 388     | 267              | 1 513 |
|                       | Mississippian | 888   | 107   | 57      | 88               | 95   | 51      | 78               | 224   |
|                       | Subtotal      |   |   |         |                  | 976  | 451     | 353              | 1 780 |

TABLE 6-1 (continued)

|               | 1                    | 2   | 3   | 4       | 5                | 6  | 7       | 8                | 9     |
|---------------|----------------------|---|---|---------|------------------|--|---------|------------------|-------|
| Field         | Zone                 | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |       |
|               |                      |   | Propane   | Butanes | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total |
|               |                      | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |         |                  | 10 <sup>3</sup> m <sup>3</sup>                           |         |                  |       |
| Peco          | Cardium              | 45  | 111   | 67      | 111              | 5  | 3       | 5                | 13    |
|               | Viking               | 232   | 112   | 60      | 108              | 26   | 14      | 25               | 65    |
|               | Mannville            | 2 723   | 69  | 45      | 253              | 189  | 122     | 688              | 999   |
|               | Jurassic             | 1 708   | 141   | 70      | 273              | 241  | 120     | 467              | 828   |
|               | Winterburn           | 183   | —   | —       | 153              | —  | —       | 28               | 28    |
|               | Subtotal             |   |   |         |                  | 461  | 259     | 1 213            | 1 933 |
|               | Pembina              | Belly River                                   | 3 583   | 38      | 32               | 56   | 135     | 116              | 199   |
| Cardium       |                      | 11 439  | 232   | 103     | 76               | 2 649  | 1 173   | 866              | 4 688 |
| Viking        |                      | 243   | 128   | 70      | 86               | 31   | 17      | 21               | 69    |
| Mannville     |                      | 8 110   | 64  | 33      | 89               | 516  | 268     | 723              | 1 507 |
| Jurassic      |                      | 1 179   | 99  | 53      | 77               | 117  | 63      | 91               | 271   |
| Mississippian |                      | 1 148   | 142   | 69      | 77               | 163  | 79      | 88               | 330   |
| Winterburn    |                      | 2 381   | 281   | 144     | 73               | 668  | 344     | 173              | 1 185 |
| Subtotal      |                      |   |   |         |                  | 4 279  | 2 060   | 2 161            | 8 500 |
| Quirk Creek   | Mississippian        | 3 569   | 82  | 59      | 113              | 294  | 211     | 402              | 907   |
|               | Subtotal             |   |   |         |                  | 294  | 211     | 402              | 907   |
| Rainbow       | Mannville            | 3 592   | 7   | 4       | 6                | 26   | 16      | 22               | 64    |
|               | Slave Point          | 773   | 114   | 70      | 74               | 88   | 54      | 57               | 199   |
|               | Sulphur Point        | 1 169   | 103   | 63      | 72               | 120  | 74      | 84               | 278   |
|               | Muskeg               | 597   | 375   | 176     | 80               | 224  | 105     | 48               | 377   |
|               | Keg River            | 9 246   | 292   | 187     | 229              | 2 700  | 1 728   | 2 119            | 6 547 |
|               | Subtotal             |   |   |         |                  | 3 158  | 1 977   | 2 330            | 7 465 |
| Rainbow South | Sulphur Point        | 812   | 30  | 21      | 76               | 24   | 17      | 62               | 103   |
|               | Muskeg               | 554   | 34  | 18      | 72               | 19   | 10      | 40               | 69    |
|               | Keg River            | 1 515   | 218   | 121     | 255              | 330  | 184     | 387              | 901   |
|               | Subtotal             |   |   |         |                  | 373  | 211     | 489              | 1 073 |
| Ricinus       | Cardium <sup>a</sup> | 12 467  | —   | —       | —                | 1 101  | 742     | 1 675            | 3 518 |
|               | Viking               | 2 995   | 7   | 5       | 111              | 20   | 14      | 333              | 367   |
|               | Winterburn           | 250   | 48  | 36      | 24               | 12   | 9       | 6                | 27    |
|               | Subtotal             |   |   |         |                  | 1 133  | 765     | 2 014            | 3 912 |



TABLE 6-1 (continued)

|                  | 1                | 2   | 3   | 4       | 5                | 6  | 7       | 8                | 9     |
|------------------|------------------|---|---|---------|------------------|--|---------|------------------|-------|
| Field            | Zone             | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |       |
|                  |                  |   | Propane   | Butanes | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total |
|                  |                  | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |         |                  | 10 <sup>3</sup> m <sup>3</sup>                           |         |                  |       |
| Shekelie         | Sulphur Point    | 498   | 145   | 100     | 147              | 72   | 50      | 73               | 195   |
|                  | Muskeg           | 141   | 149   | 106     | 149              | 21   | 15      | 21               | 57    |
|                  | Elk Point        | 14  | 143   | 214     | 143              | 2  | 3       | 2                | 7     |
|                  | Keg River        | 1 542   | 134   | 106     | 129              | 207  | 164     | 199              | 570   |
|                  | Subtotal         |   |   |         |                  | 302  | 232     | 295              | 829   |
| Sinclair         | Upper Cretaceous | 2 511   | 38  | 17      | 42               | 96   | 43      | 106              | 245   |
|                  | Mannville        | 7 331   | 29  | 14      | 26               | 212  | 104     | 189              | 505   |
|                  | Jurassic         | 467   | 126   | 58      | 92               | 59   | 27      | 43               | 129   |
|                  | Subtotal         |   |   |         |                  | 367  | 174     | 338              | 879   |
| Strachan         | Cardium          | 84  | 155   | 83      | 71               | 13   | 7       | 6                | 26    |
|                  | Mannville        | 2 204   | 45  | 23      | 65               | 99   | 50      | 143              | 292   |
|                  | Jurassic         | 59  | 102   | 51      | 34               | 6  | 3       | 2                | 11    |
|                  | Leduc            | 6 917   | 40  | 45      | 193              | 280  | 312     | 1 337            | 1 929 |
|                  | Subtotal         |   |   |         |                  | 398  | 372     | 1 488            | 2 258 |
| Swan Hills       | Beaverhill Lake  | 3 923   | 694   | 425     | 232              | 2 723  | 1 667   | 910              | 5 300 |
|                  | Subtotal         |   |   |         |                  | 2 723  | 1 667   | 910              | 5 300 |
| Swan Hills South | Beaverhill Lake  | 2 641   | 691   | 457     | 293              | 1 825  | 1 207   | 774              | 3 806 |
|                  | Subtotal         |   |   |         |                  | 1 825  | 1 207   | 774              | 3 806 |
| Sylvan Lake      | Viking           | 474   | 141   | 95      | 120              | 67   | 45      | 57               | 169   |
|                  | Mannville        | 6 923   | 103   | 59      | 83               | 712  | 410     | 574              | 1 696 |
|                  | Jurassic         | 2 772   | 149   | 80      | 84               | 414  | 221     | 233              | 868   |
|                  | Mississippian    | 3 300   | 117   | 65      | 88               | 386  | 216     | 289              | 891   |
|                  | Leduc            | 769   | 112   | 94      | 224              | 86   | 72      | 172              | 330   |
|                  | Subtotal         |   |   |         |                  | 1 665  | 964     | 1 325            | 3 954 |
| Twining          | Viking           | 696   | 29  | 13      | 53               | 20   | 9       | 37               | 66    |
|                  | Mannville        | 795   | 38  | 28      | 55               | 30   | 22      | 44               | 96    |
|                  | Mississippian    | 5 651   | 25  | 29      | 77               | 141  | 165     | 436              | 742   |
|                  | Subtotal         |   |   |         |                  | 191  | 196     | 517              | 904   |

TABLE 6-1 (continued)

|                 | 1                          | 2   | 3   | 4       | 5                | 6  | 7       | 8                | 9     |
|-----------------|----------------------------|---|---|---------|------------------|--|---------|------------------|-------|
| Field           | Zone                       | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |         |                  |       |
|                 |                            |   | Propane   | Butanes | Pentanes<br>Plus | Propane  | Butanes | Pentanes<br>Plus | Total |
|                 |                            | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |         |                  | 10 <sup>3</sup> m <sup>3</sup>                           |         |                  |       |
| Valhalla        | Doe Creek                  | 3 178   | 11  | 5       | 23               | 35   | 16      | 73               | 124   |
|                 | Mannville                  | 1 408   | 42  | 19      | 43               | 59   | 27      | 61               | 147   |
|                 | Jurassic                   | 60  | 150   | 83      | 100              | 9  | 5       | 6                | 20    |
|                 | Triassic <sup>a</sup>      | 6 034   | —   | —       | —                | 1 023  | 635     | 1 387            | 3 045 |
|                 | Subtotal                   |   |   |         |                  | 1 126  | 683     | 1 527            | 3 336 |
| Waterton        | Mannville                  | 274   | 88  | 44      | 51               | 24   | 12      | 14               | 50    |
|                 | Mississippian <sup>a</sup> | 21 585  | —   | —       | —                | 945  | 1 069   | 4 640            | 6 654 |
|                 | Subtotal                   |   |   |         |                  | 969  | 1 081   | 4 654            | 6 704 |
| Wembley         | Triassic <sup>a</sup>      | 3 882   | —   | —       | —                | 761  | 473     | 1 058            | 2 292 |
|                 | Subtotal                   |   |   |         |                  | 761  | 473     | 1 058            | 2 292 |
| Westerose       | Mannville                  | 2 828   | 132   | 68      | 133              | 372  | 192     | 375              | 939   |
|                 | Winterburn                 | 76  | 92  | 79      | 132              | 7  | 6       | 10               | 23    |
|                 | Leduc                      | 3 784   | 236   | 146     | 164              | 894  | 551     | 619              | 2 064 |
|                 | Subtotal                   |   |   |         |                  | 1 273  | 749     | 1 004            | 3 026 |
| Westerose South | Mannville                  | 13 745  | 153   | 84      | 106              | 2 109  | 1 148   | 1 452            | 4 709 |
|                 | Mississippian              | 249   | 137   | 64      | 72               | 34   | 16      | 18               | 68    |
|                 | Wabamun                    | 313   | —   | —       | 35               | —  | —       | 11               | 11    |
|                 | Leduc                      | 1 367   | 158   | 110     | 266              | 216  | 150     | 363              | 729   |
|                 | Subtotal                   |   |   |         |                  | 2 359  | 1 314   | 1 844            | 5 517 |
| Westpem         | Mannville                  | 629   | 113   | 64      | 92               | 71   | 40      | 58               | 169   |
|                 | Jurassic                   | 157   | 127   | 76      | 115              | 20   | 12      | 18               | 50    |
|                 | Winterburn <sup>a</sup>    | 1 672   | —   | —       | —                | 307  | 333     | 746              | 1 386 |
|                 | Subtotal                   |   |   |         |                  | 398  | 385     | 822              | 1 605 |
| Willesden Green | Belly River                | 1 693   | 135   | 80      | 66               | 228  | 136     | 112              | 476   |
|                 | Cardium                    | 3 312   | 87  | 70      | 92               | 289  | 232     | 306              | 827   |
|                 | Viking                     | 688   | 124   | 90      | 142              | 85   | 62      | 98               | 245   |
|                 | Mannville                  | 7 235   | 156   | 83      | 168              | 1 131  | 597     | 1 216            | 2 944 |
|                 | Jurassic                   | 818   | 248   | 176     | 126              | 203  | 144     | 103              | 450   |
|                 | Mississippian              | 296   | 98  | 57      | 88               | 29   | 17      | 26               | 72    |
|                 | Subtotal                   |   |   |         |                  | 1 965  | 1 188   | 1 861            | 5 014 |

TABLE 6-1 (continued)

|                                    | 1                  | 2   | 3   | 4       | 5                | 6  | 7                    | 8                    | 9                      |
|------------------------------------|--------------------|---|---|---------|------------------|--|----------------------|----------------------|------------------------|
| Field                              | Zone               | Remaining<br>Reserves of<br>Marketable<br>Gas | Liquid Recovery Ratio   |         |                  | Remaining Established Reserves<br>of Natural Gas Liquids |                      |                      |                        |
|                                    |                    |   | Propane   | Butanes | Pentanes<br>Plus | Propane  | Butanes              | Pentanes<br>Plus     | Total                  |
|                                    |                    | 10 <sup>6</sup> m <sup>3</sup>                | m <sup>3</sup> /10 <sup>6</sup> m <sup>3</sup> of<br>marketable gas |         |                  | 10 <sup>3</sup> m <sup>3</sup>                           |                      |                      |                        |
| Windfall                           | Viking             | 414   | —   | —       | 46               | —  | —                    | 19                   | 19                     |
|                                    | Mannville          | 813   | 38  | 18      | 44               | 31   | 15                   | 36                   | 82                     |
|                                    | Mississippian      | 427   | 26  | 16      | 23               | 11   | 7                    | 10                   | 28                     |
|                                    | Winterburn         | 689   | —   | —       | 276              | —  | —                    | 190                  | 190                    |
|                                    | Leduc <sup>a</sup> | 8 435   | —   | —       | —                | 41   | 53                   | 860                  | 954                    |
|                                    | Beaverhill Lake    | 11  | 545   | 273     | 182              | 6  | 3                    | 2                    | 11                     |
|                                    | Subtotal           |   |   |         |                  | 89   | 78                   | 1 117                | 1 284                  |
| Wizard Lake                        | Mannville          | 233   | 94  | 56      | 52               | 22   | 13                   | 12                   | 47                     |
|                                    | Winterburn         | 18  | 333   | 167     | 56               | 6  | 3                    | 1                    | 10                     |
|                                    | Leduc              | 7 034   | 346   | 199     | 60               | 2 434  | 1 403                | 420                  | 4 257                  |
|                                    | Subtotal           |   |   |         |                  | 2 462  | 1 419                | 433                  | 4 314                  |
| Zama                               | Beaverhill Lake    | 1 314   | 5   | 11      | 49               | 7  | 14                   | 65                   | 86                     |
|                                    | Sulphur Point      | 3 821   | 54  | 33      | 83               | 206  | 126                  | 316                  | 648                    |
|                                    | Muskeg             | 170   | 41  | 41      | 82               | 7  | 7                    | 14                   | 28                     |
|                                    | Keg River          | 605   | 104   | 89      | 98               | 63   | 54                   | 59                   | 176                    |
|                                    | Subtotal           |   |   |         |                  | 283  | 201                  | 454                  | 938                    |
| Subtotal                           |                    |   |   |         |                  | 55 509   | 37 863               | 81 670               | 175 042                |
| Reserves Beyond Economic Reach     |                    |   |   |         |                  | 901  | 536                  | 2 083                | 3 520                  |
| Confidential Reserves              |                    |   |   |         |                  | 505  | 270                  | 460                  | 1 235                  |
| Other Small Reserves               |                    |   |   |         |                  | 14 576   | 9 225                | 26 023               | 49 824                 |
| Subtotal                           |                    |   |   |         |                  | 71 491   | 47 894               | 110 236              | 229 621                |
| Recoverable at Reprocessing Plants |                    |   |   |         |                  | 52 040   | 20 960               | 8 630                | 81 630                 |
| Recoverable from Solvent Floods    |                    |   |   |         |                  | 2 100  | 1 560                | 1 250                | 4 910                  |
| Total Reserves                     |                    |   |   |         |                  | 125 631  | 70 414               | 120 116              | 316 161                |
|                                    |                    |   |   |         |                  | (791.5) <sup>c</sup>                                     | (443.4) <sup>c</sup> | (755.9) <sup>c</sup> | (1 990.8) <sup>c</sup> |

<sup>a</sup> Includes gas cycling pool. Gas reserves calculated on an energy basis. See Table 4-2.

Liquid recovery ratios are not included due to those parameters changing with time.

<sup>b</sup> Liquid recovery ratios are less than 1.<sup>c</sup> Imperial equivalent in millions of barrels.







---

## 7 RESERVES OF SULPHUR

---

### 7.1 SULPHUR FROM NATURAL GAS

The Board estimates the remaining established reserves of sulphur from natural gas in the province as at 31 December 1985 to be some 77 million tonnes. The changes in sulphur reserves during the past year are as follows:

|  | <b><u>Established<br/>Sulphur Reserves</u></b> |
|--|--|
|  | 10 <sup>6</sup> t                              |
| Remaining at 31 December 1984                    | 85.1   |
| Additions during 1985                            | -3.3   |
| Production during 1985                           | 5.0  |
| Remaining at 31 December 1985                    | 76.8<br>(75.6) <sup>a</sup>                    |
| Cumulative net production to 31 December 1985    | 109.2  |
| Initial established reserves at 31 December 1985 | 186.0<br>(181.3) <sup>a</sup>                  |

---

<sup>a</sup> Imperial equivalent in millions of long tons.

Of the cumulative net production of 109.2 million tonnes at year-end 1985, some 9.3 million were stockpiled at various gas plants in the province. Over the years, stockpiling reflected a lack of markets for a portion of the production, and in part, a shortage of slating, loading, and transportation facilities and limited ocean-terminal storage capacity. However, with recently improved sulphur markets, producers have reduced their stockpiles to meet the increase in demand. Consequently, the sulphur stockpiled at year-end 1985 was some 2.5 million tonnes less than at year-end 1984.

The Board's estimates of remaining established reserves of sulphur recoverable from gas have been prepared by applying the appropriate hydrogen sulphide content and sulphur recovery efficiency to the remaining established reserves of raw gas in each pool. Where sulphur is currently being recovered, historical recovery efficiencies have been used. Where sulphur recovery is anticipated from gas reserves not yet being produced, the recovery efficiency has been estimated on the basis of the minimum sulphur recovery efficiency guidelines, published in the Board's Informational Letter IL 80-24. The remaining established reserves of sulphur for cycling schemes were determined from a detailed assessment of each pool and, because the H<sub>2</sub>S content in the gas changes with time, only the remaining reserves are reported.

Of the 76.8 million tonnes of remaining sulphur recoverable from gas, some 61.3 million are in currently producing pools and the remaining 15.6 million are in unconnected pools. The unconnected reserves include some 5.3 million tonnes in pools considered beyond economic reach. None of the 1985 confidential gas reserves contain significant reserves of sulphur.

The Board's reserve estimates are shown in Table 7-1. Fields containing 800 000 tonnes or more of recoverable sulphur are listed individually and those containing less are grouped under "Small Reserves". The remaining established reserves have been reduced from last year due to production and to re-evaluation of reserves in several pools. Significant reduction in sulphur reserves of the Crossfield Field has occurred as a result of re-evaluation of the gas-in-place for the Wabamun A Pool. Additionally, the gas-in-place and recovery factors for ultra-high H<sub>2</sub>S pools in the Caroline, Panther River, Quirk Creek, and Whiskey fields have been reduced resulting in significant reductions in sulphur reserves in these pools.



## 7.2 SULPHUR FROM CRUDE BITUMEN

Crude bitumen in oil sands deposits contains significant amounts of sulphur. During the conversion of bitumen into synthetic crude oil, much of the sulphur fraction remains in the coke by-product. However, most of the remainder that passes over into the process sections is ultimately recovered in the same manner as from raw natural gas.

It is currently estimated that some 150 million tonnes of elemental sulphur will be recoverable from the 5.1 billion cubic metres of remaining established crude bitumen reserves in the surface mineable area. Existing plants are expected to recover 8.2 million tonnes of this sulphur. These sulphur reserves were estimated by multiplying the remaining established reserves of crude bitumen by a factor of 28.6 tonnes per thousand cubic metres of crude bitumen. This ratio was based on recent experience at existing bitumen synthetic-crude-oil plants. Earlier Board estimates of the sulphur recoverable from bitumen included both the sulphur in coke and that recoverable as elemental sulphur. The above estimate includes only the elemental sulphur expected to be produced in recovering the synthetic crude oil.

The initial established reserves of sulphur for the Suncor and Syncrude plants are 11.1 million tonnes, of which 2.9 million tonnes have been produced leaving a remaining established reserve of elemental sulphur of 8.2 million tonnes. During 1985, some 381 293 tonnes of sulphur were recovered at bitumen synthetic-crude-oil plants. The changes in established reserves during 1985 are summarized below.

|  | <b><u>Established<br/>Sulphur Reserves</u></b> |
|--|--|
|  | 10 <sup>6</sup> t                              |
| Remaining at 31 December 1984                    | 8.6  |
| Production during 1985                           | 0.4  |
| Remaining at 31 December 1985                    | 8.2  |
|  | (8.1) <sup>a</sup>                             |
| Cumulative net production to 31 December 1985    | 2.9  |
| Initial established reserves at 31 December 1985 | 11.1   |
|  | (10.9) <sup>a</sup>                            |

<sup>a</sup> Imperial equivalent in millions of long tons.

**TABLE 7-1      REMAINING ESTABLISHED RESERVES OF SULPHUR**  
**As at 31 December 1985**

| Field              | 1<br>Zone                    | 2  | 3  | 4                      | 5  |
|--------------------|------------------------------|--|--|------------------------|--|
|                    |                              | Remaining<br>Established<br>Reserves<br>of Raw Gas | H <sub>2</sub> S<br>Content <sup>a</sup> | Recovery<br>Efficiency | Remaining<br>Established<br>Reserves<br>of Sulphur |
|                    |                              | 10 <sup>6</sup> m <sup>3</sup>                     | mol/mol                                  | percentage             | 10 <sup>3</sup> tonnes                             |
| Blackstone         | Beaverhill Lake              | 14 515   | 0.107                                    | 98                     | <u>2 068</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>2 068</u>                                       |
| Brazeau River      | Mississippian                | 16 042   | 0.010                                    | 95                     | 205  |
|                    | Nisku                        | 5 715  | 0.152                                    | 99                     | <u>1 164</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>1 369</u>                                       |
| Burnt Timber       | Mississippian                | 8 983  | 0.079                                    | 97                     | 930  |
|                    | Wabamun                      | 2 627  | 0.304                                    | 97                     | <u>1 050</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>1 980</u>                                       |
| Caroline           | Mannville                    | 150  | 0.057                                    | 95                     | 11   |
|                    | Nisku                        | 186  | 0.518                                    | 95                     | 124  |
|                    | Leduc <sup>b</sup>           | 2 282  | 0.825                                    | 98                     | <u>2 503</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>2 638</u>                                       |
| Coleman            | Mississippian                | 2 235  | 0.279                                    | 97                     | 820  |
|                    | Wabamun                      | 1 624  | 0.279                                    | 97                     | <u>596</u>   |
|                    | Subtotal                     |  |  |                        | <u>1 416</u>                                       |
| Crossfield         | Mannville                    | 458  | 0.005                                    | 98                     | 3  |
|                    | Mississippian                | 12 557   | 0.007                                    | 98                     | 111  |
|                    | Wabamun                      | 7 100  | 0.317                                    | 98                     | <u>2 995</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>3 109</u>                                       |
| Crossfield East    | Mississippian                | 6  | 0.259                                    | 95                     | 2  |
|                    | Wabamun                      | 8 602  | 0.359                                    | 98                     | <u>4 109</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>4 111</u>                                       |
| Hanlan             | Nisku                        | 1 108  | 0.051                                    | 95                     | 75   |
|                    | Beaverhill Lake              | 29 631   | 0.092                                    | 98                     | <u>3 608</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>3 683</u>                                       |
| Jumping Pound West | Mississippian                | 40 418   | 0.066                                    | 97                     | <u>3 504</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>3 504</u>                                       |
| Kaybob South       | Mannville                    | 1 266  | 0.010                                    | 99                     | 17   |
|                    | Triassic                     | 2 229  | 0.004                                    | 98                     | 11   |
|                    | Nisku                        | 1 081  | 0.197                                    | 95                     | 275  |
|                    | Beaverhill Lake <sup>c</sup> | —  | —  | —                      | <u>4 273</u>                                       |
|                    | Subtotal                     |  |  |                        | <u>4 576</u>                                       |

TABLE 7-1 (continued)

| Field         | 1<br>Zone                   | 2<br>Remaining<br>Established<br>Reserves<br>of Raw Gas<br>10 <sup>6</sup> m <sup>3</sup> | 3<br>H <sub>2</sub> S<br>Content <sup>a</sup><br>mol/mol | 4<br>Recovery<br>Efficiency<br>percentage | 5<br>Remaining<br>Established<br>Reserves<br>of Sulphur<br>10 <sup>3</sup> tonnes |
|---------------|-----------------------------|---|--|---|---|
| Limestone     | Mississippian               | 9 880   | 0.053  | 98  | 702   |
|               | Wabamun                     | 2 566   | 0.191  | 98  | 651   |
|               | Nisku                       | 885   | 0.133  | 98  | 156   |
|               | Leduc                       | 1 324   | 0.165  | 98  | 290   |
|               | Subtotal                    |   |  |   | 1 799   |
| Moose         | Mississippian               | 3 502   | 0.111  | 97  | 513   |
|               | Wabamun                     | 1 363   | 0.311  | 96  | 552   |
|               | Subtotal                    |   |  |   | 1 065   |
| Obed          | Nisku                       | 4 920   | 0.241  | 98  | 1 578   |
|               | Subtotal                    |   |  |   | 1 578   |
| Okotoks       | Mississippian               | 299   | 0.013  | 95  | 5   |
|               | Wabamun                     | 8 854   | 0.355  | 95  | 4 048   |
|               | Subtotal                    |   |  |   | 4 053   |
| Panther River | Mississippian               | 3 683   | 0.073  | 96  | 352   |
|               | Wabamun <sup>b</sup>        | 896   | 0.710  | 96  | 828   |
|               | Nisku <sup>b</sup>          | 475   | 0.704  | 97  | 440   |
|               | Subtotal                    |   |  |   | 1 620   |
| Pine Creek    | Jurassic                    | 3 198   | 0.001  | 96  | 6   |
|               | Mississippian               | 364   | 0.023  | 96  | 11  |
|               | Wabamun                     | 2 909   | 0.282  | 99  | 1 100   |
|               | Leduc                       | 1 935   | 0.248  | 99  | 643   |
|               | Subtotal                    |   |  |   | 1 760   |
| Ricinus       | Leduc                       | 4 556   | 0.304  | 99  | 1 861   |
|               | Subtotal                    |   |  |   | 1 861   |
| Ricinus West  | Leduc                       | 10 216  | 0.332  | 98  | 4 507   |
|               | Subtotal                    |   |  |   | 4 507   |
| Strachan      | Leduc                       | 9 142   | 0.101  | 99  | 1 234   |
|               | Subtotal                    |   |  |   | 1 234   |
| Waterton      | Mississippian               | 15 883  | 0.250  | 99  | 5 336   |
|               | Wabamun                     | 1 844   | 0.137  | 96  | 330   |
|               | Rundle-Wabamun <sup>c</sup> | —   | —  | —   | 4 926   |
|               | Subtotal                    |   |  |   | 10 592  |



TABLE 7-1 (continued)

| Field          | 1<br>Zone          | 2  | 3   | 4                                    | 5  |
|----------------|--------------------|--|---|--------------------------------------|--|
|                |                    | Remaining<br>Established<br>Reserves<br>of Raw Gas<br>10 <sup>6</sup> m <sup>3</sup> | H <sub>2</sub> S<br>Content <sup>a</sup><br>mol/mol | Recovery<br>Efficiency<br>percentage | Remaining<br>Established<br>Reserves<br>of Sulphur<br>10 <sup>3</sup> tonnes |
| Windfall       | Mannville          | 250  | 0.015   | 99                                   | 5  |
|                | Mississippian      | 151  | 0.069   | 99                                   | 14   |
|                | Nisku              | 313  | 0.139   | 95                                   | 56   |
|                | Leduc <sup>c</sup> | —  | —   | —                                    | <u>2 313</u>   |
|                | Subtotal           |  |   |                                      | <u>2 388</u>   |
| Subtotal       |                    |  |   |                                      | <u>60 911</u>  |
| Small Reserves |                    |  |   |                                      | <u>15 937</u>  |
| Total Reserves |                    |  |   |                                      | <u>76 848</u>  |
|                |                    |  |   |                                      | (75 634) <sup>d</sup>  |

<sup>a</sup> Volume-weighted average.<sup>b</sup> Currently considered beyond economic reach.<sup>c</sup> Includes gas-cycling pool. Gas reserves calculated on an energy basis. See Table 4-2. H<sub>2</sub>S content is not included due to gas composition changing with time.<sup>d</sup> Imperial equivalent in thousands of long tons.









---

## 8 ULTIMATE POTENTIAL

---

In 1979, the Board held a hearing to review the ultimate potential of Alberta's natural gas and, in 1980, that of Alberta's crude oil and equivalent. Its findings on gas were summarized in ERCB Report 79-G<sup>1</sup> and on crude oil in ERCB Report 81-B<sup>2</sup>.

During 1985 the Board issued ERCB Report 85-A<sup>3</sup> which provided a forecast of Alberta oil supply from all sources for the years 1985 to 2010. This forecast comprised an update to the detailed forecast presented in ERCB Report 81-B and in ERCB Report 83-E<sup>4</sup>. The following sections abstract from these reports. The values for ultimate potential for all resources are approximate.

### 8.1 CONVENTIONAL CRUDE OIL

The ultimate potential of crude oil and equivalent, estimated on the basis of industry submissions as well as the Board's own studies, was presented in Reports 85-A and is the basis for the following discussion.

#### 8.1.1 Ultimate Potential

The Board concluded in Report 85-A that reserves growth from new discoveries/additions would add some 230 million cubic metres to the existing light-medium established reserves and some 31 million cubic metres to the existing conventional heavy established reserves. It further forecast that an additional 255 million and 75 million cubic metres of light-medium and conventional heavy crude oil, respectively, would be recovered by application of tertiary recovery schemes in the future. When these predicted future additions were added to the initial established reserves at year-end 1984, the resulting ultimate potential from all conventional crude oil sources was some 2650 million cubic metres. This confirms the Board's opinion that the conventional oil ultimate potential for Alberta lies somewhere between 2400 and 2700 million cubic metres.

The current relationship between the initial and remaining ultimate potential of conventional crude oil based on the above estimates, is illustrated below:

|  |                                     |
|--|-------------------------------------|
|  | <u>10<sup>6</sup> m<sup>3</sup></u> |
| Ultimate Potential                     | 2 650                               |
| Cumulative Production to Year-end 1985 | <u>1 474</u>                        |
| Ultimate Potential Remaining           | 1 176                               |

#### 8.1.2 Trend in Annual Additions of Conventional Initial Established Reserves

Net annual additions to Alberta's initial established crude oil reserves averaged 54.3 million cubic metres from 1951 to 1985, falling to 29.2 million from 1976 to 1985. However, the net additions have averaged some 56.7 million cubic metres for the past three years (Table 8-1, column 1).

The forecast of additions from all sources is shown in Figure 8-1. In Report 85-A, the Board forecast that additions to initial established reserves of conventional crude oil would peak at some 53 million cubic metres annually in the short term augmented substantially by tertiary programs, and then decline gradually as fewer new pools are found and fewer tertiary projects are undertaken. Additions were predicted to average 22.7 million annually over the forecast period.

---

<sup>1</sup> Energy Resources Conservation Board, December 1979. Ultimate Potential for Gas in Alberta. ERCB Report 79-G.

<sup>2</sup> \_\_\_\_\_, January 1981. Estimates of Ultimate Potential and Forecasts of Attainable Productive Capacity of Alberta's Crude Oil and Equivalent. ERCB Report 81-B.

<sup>3</sup> \_\_\_\_\_, 1985. Alberta Oil Supply, 1985-2010. ERCB Report 85-A.

<sup>4</sup> \_\_\_\_\_, 1983. Alberta Oil Supply, 1983-2007. ERCB Report 83-E.

**TABLE 8-1 SUMMARY OF INITIAL AND REMAINING  
ESTABLISHED RESERVES OF CONVENTIONAL CRUDE OIL**  
As of Each Year-end  
millions of cubic metres

| Year | 1                   | 2                       | 3          | 4                       | 5                                     |
|------|---------------------|-------------------------|------------|-------------------------|---------------------------------------|
|      | Initial Established |                         | Production |                         | Remaining<br>Established <sup>a</sup> |
|      | Addition            | Cumulative <sup>a</sup> | Annual     | Cumulative <sup>a</sup> |                                       |
| 1951 | 44.5                | 219.3                   | 7.3        | 29.4                    | 189.9                                 |
| 1952 | 62.5                | 281.7                   | 9.3        | 38.8                    | 243.0                                 |
| 1953 | 66.6                | 348.3                   | 12.2       | 51.0                    | 297.3                                 |
| 1954 | 55.6                | 403.9                   | 13.9       | 65.0                    | 339.0                                 |
| 1955 | 68.2                | 472.1                   | 17.9       | 82.8                    | 389.3                                 |
| 1956 | 82.0                | 554.1                   | 22.8       | 105.7                   | 448.4                                 |
| 1957 | 39.9                | 594.0                   | 21.7       | 127.4                   | 466.6                                 |
| 1958 | 1.4                 | 595.4                   | 17.9       | 145.2                   | 450.2                                 |
| 1959 | 67.5                | 663.0                   | 20.5       | 165.7                   | 497.2                                 |
| 1960 | 48.6                | 711.6                   | 20.7       | 186.6                   | 525.0                                 |
| 1961 | 57.5                | 769.1                   | 25.1       | 211.5                   | 557.6                                 |
| 1962 | 44.0                | 813.5                   | 26.2       | 237.9                   | 575.6                                 |
| 1963 | 56.6                | 870.0                   | 26.8       | 264.6                   | 605.4                                 |
| 1964 | 348.5               | 1 218.5                 | 27.9       | 292.4                   | 926.1                                 |
| 1965 | 68.8                | 1 287.3                 | 29.2       | 321.6                   | 965.7                                 |
| 1966 | 140.8               | 1 428.1                 | 32.2       | 353.9                   | 1 074.2                               |
| 1967 | 95.2                | 1 523.3                 | 36.6       | 390.4                   | 1 132.9                               |
| 1968 | 119.8               | 1 643.1                 | 39.8       | 430.3                   | 1 212.8                               |
| 1969 | 54.5                | 1 697.6                 | 44.4       | 474.7                   | 1 222.8                               |
| 1970 | 36.7                | 1 734.3                 | 51.7       | 526.5                   | 1 207.9                               |
| 1971 | 22.1                | 1 756.4                 | 56.4       | 582.9                   | 1 173.6                               |
| 1972 | 20.0                | 1 776.5                 | 67.4       | 650.0                   | 1 126.0                               |
| 1973 | 9.2                 | 1 785.7                 | 83.3       | 733.7                   | 1 052.0                               |
| 1974 | 38.5                | 1 824.1                 | 79.0       | 812.7                   | 1 011.5                               |
| 1975 | 7.0                 | 1 831.1                 | 67.5       | 880.2                   | 950.9                                 |
| 1976 | -18.6               | 1 812.5                 | 61.0       | 941.2                   | 871.3                                 |
| 1977 | 19.1                | 1 831.6                 | 60.4       | 1 001.6                 | 830.0                                 |
| 1978 | 24.4                | 1 856.0                 | 60.0       | 1 061.6                 | 794.5                                 |
| 1979 | 34.3                | 1 890.3                 | 68.5       | 1 130.1                 | 760.2                                 |
| 1980 | 22.7                | 1 913.2                 | 63.2       | 1 193.3                 | 719.9                                 |
| 1981 | 32.6                | 1 945.8                 | 56.5       | 1 249.8                 | 696.0                                 |
| 1982 | 6.9                 | 1 952.7                 | 53.6       | 1 303.4                 | 649.4                                 |
| 1983 | 64.1                | 2 016.8                 | 55.6       | 1 359.0                 | 657.8                                 |
| 1984 | 42.0                | 2 058.8                 | 59.2       | 1 418.2                 | 640.7                                 |
| 1985 | 64.0                | 2 122.8                 | 56.2       | 1 474.4                 | 648.5                                 |
|      |                     | (13.4) <sup>b</sup>     |            |                         | (4.1) <sup>b</sup>                    |

<sup>a</sup> Discrepancies are due to rounding.

<sup>b</sup> Imperial equivalent in billions of stock-tank barrels.



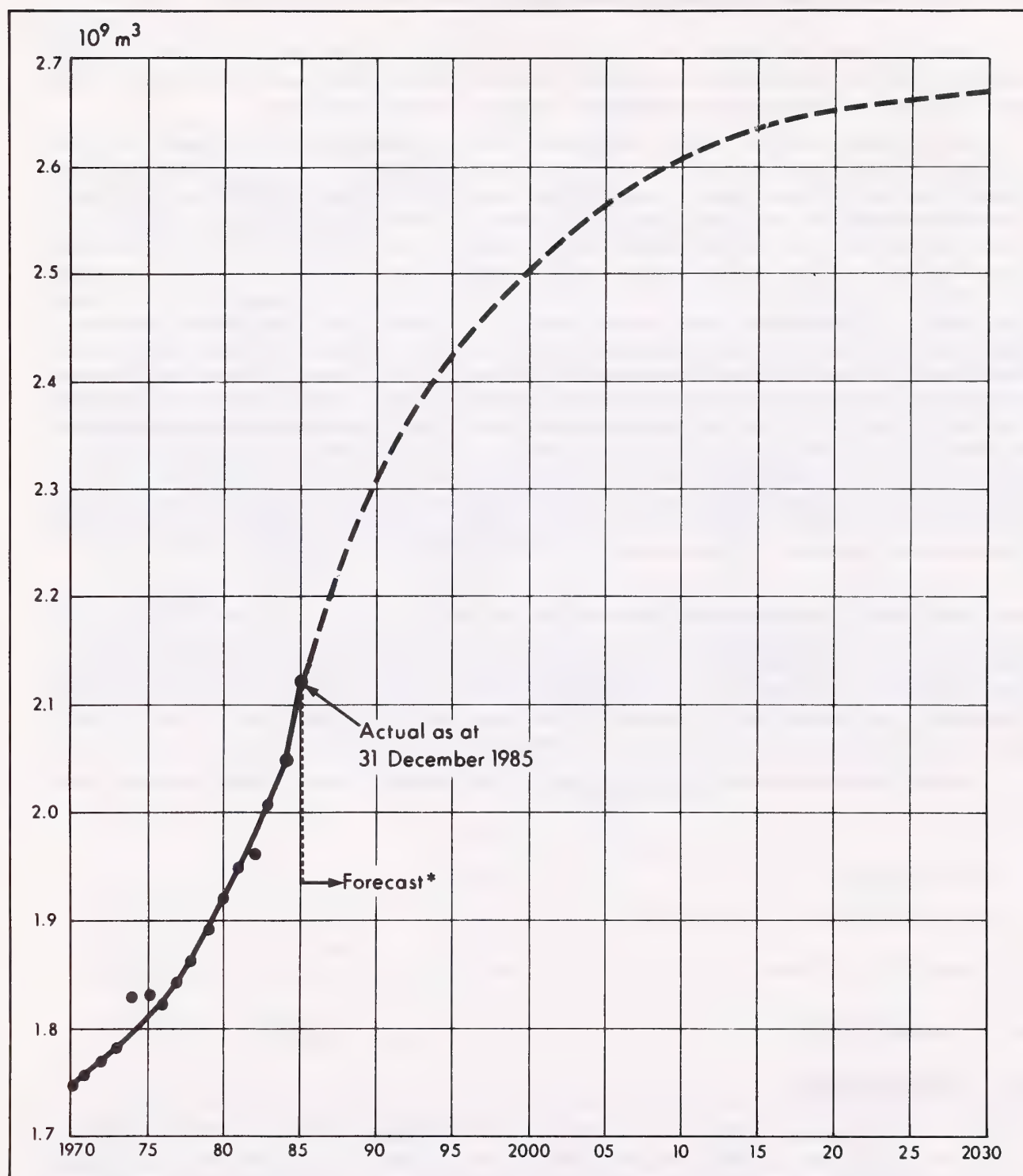


FIGURE 8-1 FORECAST GROWTH OF INITIAL ESTABLISHED RESERVES OF CONVENTIONAL CRUDE OIL

\*SOURCE: ERCB Report 85-A

## 8.2 CRUDE BITUMEN AND SYNTHETIC CRUDE OIL

The Board estimates the ultimate volume of crude bitumen in place to be 400 billion cubic metres, consisting of about 27 billion in deposits that may eventually be amenable to surface mining, and about 373 billion in deeper deposits that will require the use of in situ recovery or underground mining techniques.

Although drilling and log analyses have indicated the potential ultimate volume of crude bitumen in place to be some 400 billion cubic metres, knowledge of quality variations and those effects on recovery potential are still very limited. In addition, for some deposits, particularly carbonates, little experimentation has been carried out to establish the expected recovery factor for this type of resource. For these reasons, those portions of the in-place volumes for the Cretaceous sand and Paleozoic carbonate deposits, which will require the use of in situ recovery methods, were broken down into established and probable categories, and different recovery factors were applied to each category in establishing the ultimate potential of crude bitumen for the in situ areas. The recovery factors selected reflect the Board's current broad knowledge respecting the quality of the in-place reserves, the amount of experimentation done to date to establish recovery techniques, and a projection of improvements in those techniques in the future. The analysis suggested the ultimate potential of crude bitumen from Cretaceous sediments by in situ recovery methods to be some 33 billion cubic metres and from the carbonate sediments some 6 billion cubic metres. About 10 billion cubic metres are expected from within the surface mineable boundary and represent the initial mineable volume in-place after accounting for losses due to mining, extraction and environmental buffer zone areas but including a nominal 10 percent from the area not within the "economic stripping ratio" areas. Current projects also assume that tailing ponds and discard sites will either be located on non-mineable areas or will be removed from the mineable areas in order to recover underlying economic mineable ore. The total initial ultimate potential amount of crude bitumen recoverable is therefore about 49 billion cubic metres.

The yield of synthetic crude oil (including butanes and heavier liquid product) from crude bitumen will vary with the upgrading technology used and will depend upon the extent to which other non-bitumen energy sources are used in recovery and processing operations. The Board has revised the estimates of liquid yield expected from the upgrading and now considers an average yield factor of 0.85 by volume will be achieved. On this basis, the ultimate potential amount of synthetic crude oil recoverable is estimated at 41.5 billion cubic metres with 8.5 billion attributable to surface mining and 33 billion to the in situ areas. External energy sources such as coal and natural gas are assumed to satisfy part of the energy requirements for fuel and upgrading.

The relationships between the initial and remaining ultimate potential of crude bitumen is illustrated below:

|  | <u>10<sup>6</sup> m<sup>3</sup></u> |
|--|-------------------------------------|
| Ultimate Potential                     | 49 000                              |
| Cumulative Production to Year-end 1985 | <u>119</u>                          |
| Ultimate Potential Remaining           | 48 881                              |

## 8.3 MARKETABLE GAS

### 8.3.1 Ultimate Potential

After a public hearing in 1979, the Board concluded in ERCB Report 79-G that the ultimate potential of marketable gas is in the range of 3700 to 3900 billion cubic metres at 37.4 MJ/m<sup>3</sup>. On the basis of its normal on-going reserves evaluations since that time, the Board now holds the opinion that this estimate was too low and therefore has arbitrarily increased its estimate to 4200 billion cubic metres at 37.4 MJ/m<sup>3</sup> or 4040 billion on an actual heating value basis.

The relationship between the ultimate potential of marketable gas and the portion remaining to be recovered is illustrated below:

|  |                                     |
|--|-------------------------------------|
|  | <u>10<sup>9</sup> m<sup>3</sup></u> |
|  | at 37.4 MJ/m <sup>3</sup>           |
| Ultimate Potential of Marketable Gas   | 4 200                               |
| Cumulative Production to Year-end 1985 | <u>1 287</u>                        |
| Ultimate Potential Remaining           | 2 913                               |

### 8.3.2 Trend in Annual Additions

Annual additions to established gas reserves averaged 81.7 billion cubic metres during the period 1951 to 1985 (Table 8-2 column 1). Subsequent to the "energy crisis", annual additions increased to an average of 112.8 billion cubic metres over the period 1974 to 1982. However since then, the conditions of oversupply in Alberta's market areas (gas bubble) caused the rate to decline to 40.7 billion cubic metres per year.

The Board expects that annual additions will continue to fluctuate. The Board forecasts that in the late 1980s, they will increase from the current depressed levels, to around 60 billion cubic metres per year and continue at that rate until the mid 1990s, after which they will gradually decline as opportunities for new discoveries diminish. The resulting forecast of gas-reserves growth is shown in Figure 8-2.

## 8.4 ETHANE

The Board has estimated the weighted average ethane content of the established reserves of marketable gas to be some 0.05 mole/mole and has applied this proportion to the 4040 billion cubic metres ultimate potential of marketable gas.

The ethane content in marketable gas is tabulated below:

|   |   |
|---|---|
|   | <u>Volume of Ethane</u>                 |
|   | 10 <sup>6</sup> m <sup>3</sup> (liquid) |
| Ethane Content in Ultimate Potential of Marketable Gas                  | 720                                     |
| Ethane Content in Cumulative Marketable Gas Production to Year-end 1985 | <u>220</u>                              |
| Ethane Content in Remaining Ultimate Potential of Marketable Gas        | 500                                     |

The Board estimates that about 65 per cent of the ethane contained in the remaining ultimate potential of marketable gas could be practically and economically recovered.



**TABLE 8-2 SUMMARY OF INITIAL AND REMAINING  
ESTABLISHED RESERVES OF MARKETABLE GAS  
As of Each Year-end  
billions of cubic metres**

| Year | 1                   | 2                       | 3          | 4                       | 5                                  | 6                      |
|------|---------------------|-------------------------|------------|-------------------------|------------------------------------|------------------------|
|      | Initial Established |                         | Production |                         | Remaining Established <sup>a</sup> |                        |
|      | Additions           | Cumulative <sup>a</sup> | Annual     | Cumulative <sup>a</sup> | Actual <sup>a</sup>                | 37.4 MJ/m <sup>3</sup> |
| 1951 | 61.2                | 205.5                   | 1.6        | 19.4                    | 186.1                              | *                      |
| 1952 | 87.8                | 293.4                   | 1.8        | 21.2                    | 272.1                              | *                      |
| 1953 | 76.1                | 369.5                   | 2.0        | 23.3                    | 346.2                              | *                      |
| 1954 | 58.8                | 428.3                   | 2.5        | 25.8                    | 402.5                              | *                      |
| 1955 | 59.3                | 487.6                   | 3.0        | 28.8                    | 458.8                              | *                      |
| 1956 | 64.5                | 552.2                   | 3.2        | 32.0                    | 520.1                              | *                      |
| 1957 | 64.9                | 617.1                   | 3.8        | 35.8                    | 581.7                              | *                      |
| 1958 | 110.4               | 727.5                   | 5.3        | 41.1                    | 686.4                              | 721.2                  |
| 1959 | 88.5                | 816.0                   | 7.1        | 48.2                    | 767.8                              | 809.8                  |
| 1960 | 119.9               | 935.9                   | 9.1        | 57.4                    | 878.6                              | 926.8                  |
| 1961 | 13.3                | 949.2                   | 11.9       | 69.3                    | 879.9                              | 930.5                  |
| 1962 | 49.7                | 998.9                   | 17.6       | 86.9                    | 912.1                              | 964.2                  |
| 1963 | 35.8                | 1 034.7                 | 19.6       | 106.5                   | 928.2                              | 980.0                  |
| 1964 | 85.9                | 1 120.6                 | 22.1       | 128.6                   | 992.0                              | 1 052.6                |
| 1965 | 89.7                | 1 210.4                 | 24.2       | 152.8                   | 1 057.6                            | 1 129.6                |
| 1966 | 40.6                | 1 251.0                 | 25.5       | 178.3                   | 1 072.6                            | 1 142.5                |
| 1967 | 73.9                | 1 324.9                 | 27.5       | 205.8                   | 1 119.1                            | 1 189.6                |
| 1968 | 134.6               | 1 459.5                 | 30.0       | 235.8                   | 1 223.6                            | 1 289.0                |
| 1969 | 87.5                | 1 547.0                 | 37.8       | 273.6                   | 1 273.4                            | 1 342.6                |
| 1970 | 46.2                | 1 593.2                 | 40.1       | 313.8                   | 1 279.4                            | 1 352.0                |
| 1971 | 45.4                | 1 638.6                 | 48.5       | 362.3                   | 1 276.3                            | 1 346.9                |
| 1972 | 45.2                | 1 683.9                 | 52.4       | 414.7                   | 1 269.1                            | 1 337.6                |
| 1973 | 183.3               | 1 867.2                 | 56.0       | 470.7                   | 1 396.6                            | 1 464.5                |
| 1974 | 147.0               | 2 014.3                 | 57.0       | 527.8                   | 1 486.5                            | 1 550.2                |
| 1975 | 20.8                | 2 035.1                 | 56.6       | 584.3                   | 1 450.8                            | 1 512.8                |
| 1976 | 105.6               | 2 140.7                 | 54.6       | 639.0                   | 1 501.7                            | 1 563.9                |
| 1977 | 127.6               | 2 268.2                 | 61.0       | 700.0                   | 1 568.3                            | 1 630.3                |
| 1978 | 163.3               | 2 431.6                 | 66.4       | 766.3                   | 1 665.2                            | 1 730.9                |
| 1979 | 123.2               | 2 554.7                 | 70.0       | 836.4                   | 1 718.4                            | 1 783.1                |
| 1980 | 92.4                | 2 647.1                 | 63.8       | 900.2                   | 1 747.0                            | 1 812.1                |
| 1981 | 117.0               | 2 764.1                 | 68.6       | 968.8                   | 1 795.3                            | 1 864.8                |
| 1982 | 118.7               | 2 882.8                 | 60.9       | 1 029.7                 | 1 853.1                            | 1 924.6                |
| 1983 | 39.0                | 2 921.8                 | 66.0       | 1 095.6                 | 1 826.2                            | 1 898.7                |
| 1984 | 40.5                | 2 962.3                 | 68.3       | 1 163.9                 | 1 798.4                            | 1 872.2                |
| 1985 | 42.6                | 3 004.9                 | 72.8       | 1 236.7                 | 1 768.3                            | 1 840.0                |
|      |                     | (106.7) <sup>b</sup>    |            |                         | (62.8) <sup>b</sup>                | (65.3) <sup>b</sup>    |

<sup>a</sup> Discrepancies are due to rounding.

<sup>b</sup> Imperial equivalent in trillions of cubic feet.

\* Not available.

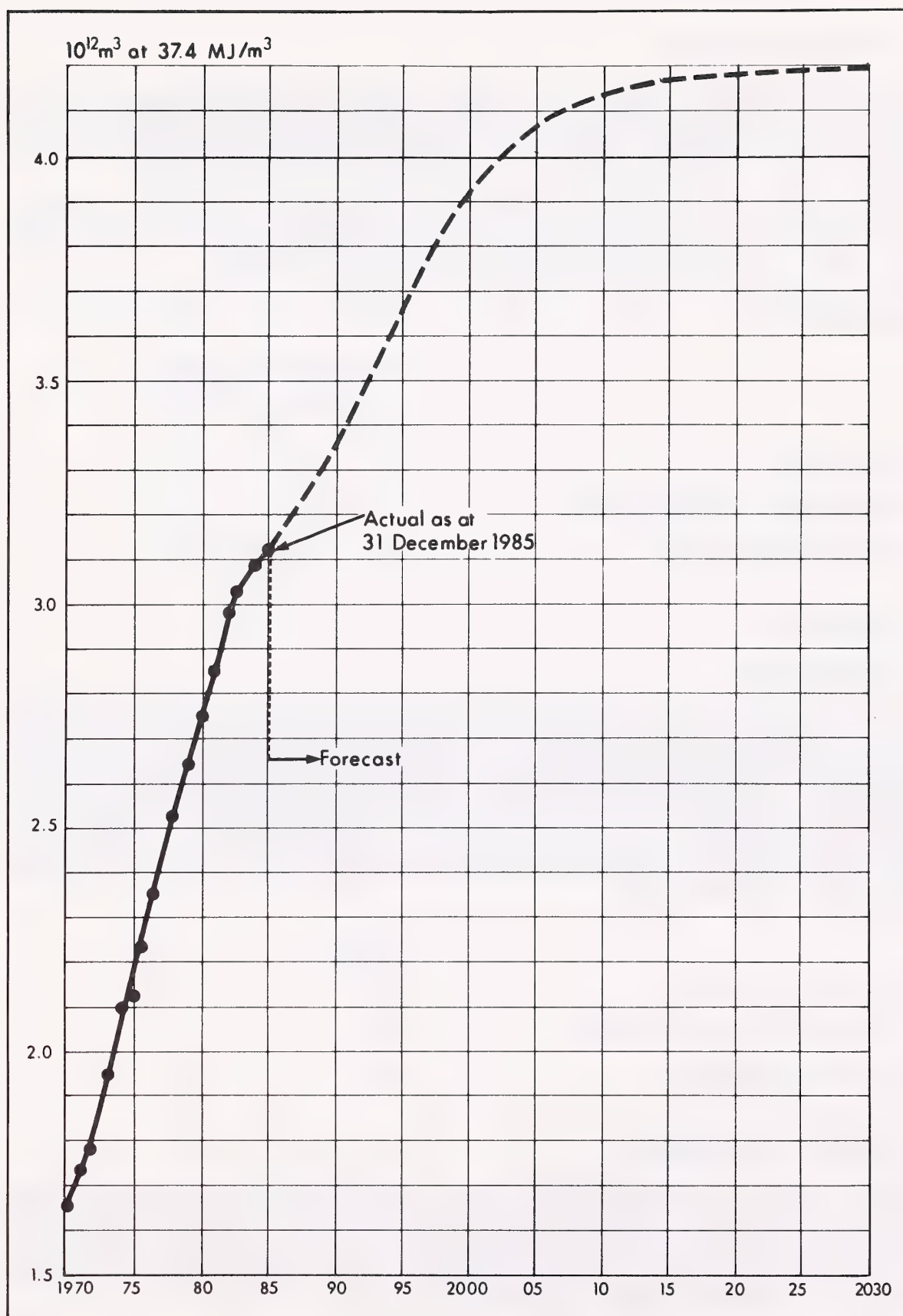


FIGURE 8-2 FORECAST GROWTH OF INITIAL ESTABLISHED RESERVES OF MARKETABLE GAS

## 8.5 NATURAL GAS LIQUIDS

The Board's estimates of the ultimate potential for propane and butanes were derived by applying the ratios of 70 and 40 cubic metres (liquid) per million cubic metres of marketable gas, respectively, to the Board's estimate of marketable gas yet to be established. These ratios were determined by dividing the initial established reserves of propane and butanes by the initial established reserves of marketable gas as at 31 December 1985.

The Board reviewed the ultimate potential of pentanes plus in 1980 and discussed its estimate in ERCB Report 81-B. Based on this report, the Board has estimated that the ratio of recoverable pentanes plus, in gas yet to be established would be 65 cubic metres (liquid) per million cubic metres of marketable gas.

The relationship between the ultimate potential of natural gas liquids and the portion remaining to be recovered is shown below:

|  | Propane                             | Butanes   | Pentanes<br>Plus |
|--|-------------------------------------|-----------|------------------|
|  | <u>10<sup>6</sup> m<sup>3</sup></u> |           |                  |
| Ultimate Potential                     | 290                                 | 170       | 340              |
| Cumulative Production to Year-End 1985 | <u>91</u>                           | <u>58</u> | <u>153</u>       |
| Ultimate Potential Remaining           | 199                                 | 112       | 187              |

## 8.6 SULPHUR

### 8.6.1 Sulphur from Gas

A recent study<sup>5</sup> completed by the Board's Vice-Chairman, G. J. DeSorcy is the basis for the Board's estimate of ultimate potential of sulphur. The study estimated that the ultimate potential for sulphur from ultra-high H<sub>2</sub>S pools would be in the order of 40 million tonnes. The Board also adopted the study's estimate<sup>1</sup> of recoverable sulphur in conventional gas yet to be established (70 tonnes per million cubic feet of gas), and applied this factor to the Board's estimate of gas yet to be established. The resulting ultimate potential of sulphur from conventional gas amounted to 260 million tonnes. The Board's estimate of ultimate potential of sulphur from both ultra-high H<sub>2</sub>S pools and conventional gas is 300 million tonnes. The relationship between the ultimate potential of sulphur and the portion remaining to be recovered is shown below:

|  | <u>10<sup>6</sup> tonnes</u> |
|--|------------------------------|
| Ultimate Potential of Sulphur          | 300                          |
| Cumulative Production to Year-End 1985 | <u>109</u>                   |
| Ultimate Potential Remaining           | 191                          |

### 8.6.2 Sulphur from Crude Bitumen

The Board estimates the ultimate potential of sulphur in Alberta's recoverable crude bitumen to be some 1800 million tonnes at year-end in 1985. This estimate was derived by applying a recovery ratio of 37.4 tonnes of sulphur per thousand cubic metres of bitumen to the 1985 year-end ultimate potential of crude bitumen of some 49 billion cubic metres. The ratio reflects the recovery expected at future plants. Less than 3 million of the 1800 million tonnes expected have been produced to the 1985 year-end.

<sup>5</sup> DeSorcy, G. J., 1985. Sulphur Recovered from Oil and Gas in Canada. Energy Resources Conservation Board. Calgary, Alberta.







---

## **APPENDIX      OIL, CRUDE BITUMEN, AND GAS DRILLING AND RESERVE GROWTH HISTORICAL DATA**

---

This appendix presents historical data on the development of the oil and gas industry in Alberta and the annual additions to established reserves of crude oil, crude bitumen, and marketable gas to year-end 1985.

The text describing the data in Tables A-4 and A-5 should be considered carefully to avoid misinterpretation.

### **TABLE A-1**

From 1951 to 1985 inclusive 80 per cent of the development wells drilled in Alberta resulted in discoveries of oil or gas compared to only 41 per cent for exploratory wells. A few unsuccessful development wells were completed as water disposal and service wells.

Counts of crude bitumen wells have been tabulated from 1980 onward. Two types of crude bitumen development wells are shown, "commercial" for those in commercial projects (including the Lindbergh Area), and "experimental" for those in recovery-test schemes. Experimental wells are included in the development category because they are drilled into known oil sands deposits. Experimental well counts are not available prior to 1980. Up to 1983 commercial crude bitumen wells appear in the table in the oil well count.

The majority of crude bitumen exploratory wells are oil sands evaluation wells which are required to be abandoned and cannot become producers. Also included are some exploratory wells licensed to obtain crude bitumen production. Oil sands evaluation wells also do not appear in any form in the table for the period prior to 1980.

During 1985, overall development and exploratory drilling increased significantly over 1984, and resulted in a record number of wells drilled in a year. Since 1982 gas well drilling has lagged behind oil well drilling because of the surplus of gas supply relative to demand, and low prices.

### **TABLE A-2**

A somewhat better measure of exploratory and development activity is the distance drilled annually in each category. Since 1966, these data have been further categorized to also show the number of metres drilled for successful oil and gas wells. The information in Table A-2 is thus closely related to that in Table A-1.



**TABLE A-1 DEVELOPMENT AND EXPLORATORY WELLS**  
**number drilled annually, 1951-1985**

|      | 1           | 2             | 3            | 4     | 5                  |
|------|-------------|---------------|--------------|-------|--------------------|
| Year | Development |               |              |       |                    |
|      | Successful  |               |              |       | Total <sup>a</sup> |
|      | Oil         | Crude Bitumen |              | Gas   |                    |
|      |             | Commercial    | Experimental |       |                    |
| 1951 | 691         | **            | *            | 21    | 777                |
| 1952 | 897         | **            | *            | 801   | 160                |
| 1953 | 838         | **            | *            | 106   | 1 162              |
| 1954 | 613         | **            | *            | 85    | 827                |
| 1955 | 1 100       | **            | *            | 681   | 281                |
| 1956 | 1 317       | **            | *            | 791   | 514                |
| 1957 | 818         | **            | *            | 731   | 020                |
| 1958 | 924         | **            | *            | 164   | 1 315              |
| 1959 | 834         | **            | *            | 164   | 1 170              |
| 1960 | 944         | **            | *            | 184   | 1 363              |
| 1961 | 741         | **            | *            | 231   | 1 188              |
| 1962 | 653         | **            | *            | 190   | 1 113              |
| 1963 | 803         | **            | *            | 861   | 255                |
| 1964 | 796         | **            | *            | 173   | 1 281              |
| 1965 | 843         | **            | *            | 155   | 1 366              |
| 1966 | 552         | **            | *            | 188   | 1 003              |
| 1967 | 506         | **            | *            | 190   | 953                |
| 1968 | 387         | **            | *            | 257   | 970                |
| 1969 | 324         | **            | *            | 311   | 901                |
| 1970 | 246         | **            | *            | 425   | 884                |
| 1971 | 269         | **            | *            | 489   | 1 085              |
| 1972 | 454         | **            | *            | 738   | 1 618              |
| 1973 | 480         | **            | *            | 961   | 1 970              |
| 1974 | 566         | **            | *            | 1 284 | 2 241              |
| 1975 | 597         | **            | *            | 1 443 | 2 408              |
| 1976 | 444         | **            | *            | 2 096 | 2 959              |
| 1977 | 530         | **            | *            | 1 941 | 2 813              |
| 1978 | 726         | **            | *            | 2 134 | 3 269              |
| 1979 | 984         | **            | *            | 2 352 | 3 892              |
| 1980 | 1 296       | **            | 139          | 2 855 | 4 749              |
| 1981 | 1 107       | **            | 173          | 2 173 | 3 833              |
| 1982 | 1 246       | **            | 234          | 1 901 | 3 628              |
| 1983 | 1 907       | **            | 268          | 836   | 3 189              |
| 1984 | 1 983       | 438           | 365          | 994   | 4 496              |
| 1985 | 2 343       | 980           | 270          | 1 694 | 6 288              |

<sup>a</sup> Includes unsuccessful, service, and suspended wells.

<sup>b</sup> Includes oil sands evaluation wells and exploratory wells licensed to obtain crude bitumen production.

\* Not available.

\*\* Included in Oil.

| 6           | 7                             | 8     | 9                  | 10         | 11               | 12    | 13                 |
|-------------|-------------------------------|-------|--------------------|------------|------------------|-------|--------------------|
| Exploratory |                               |       |                    | Total      |                  |       |                    |
| Successful  |                               |       | Total <sup>a</sup> | Successful |                  |       | Total <sup>a</sup> |
| Oil         | Crude<br>Bitumen <sup>b</sup> | Gas   |                    | Oil        | Crude<br>Bitumen | Gas   |                    |
| 68          | *                             | 94    | 461                | 759        | *                | 115   | 1 238              |
| 49          | *                             | 74    | 469                | 946        | *                | 154   | 1 629              |
| 47          | *                             | 89    | 399                | 885        | *                | 195   | 1 561              |
| 60          | *                             | 55    | 351                | 673        | *                | 140   | 1 178              |
| 45          | *                             | 70    | 346                | 1 145      | *                | 138   | 1 627              |
| 51          | *                             | 59    | 384                | 1 368      | *                | 138   | 1 898              |
| 56          | *                             | 52    | 428                | 874        | *                | 125   | 1 448              |
| 35          | *                             | 63    | 404                | 959        | *                | 227   | 1 719              |
| 43          | *                             | 78    | 432                | 877        | *                | 242   | 1 602              |
| 41          | *                             | 92    | 403                | 985        | *                | 276   | 1 766              |
| 42          | *                             | 113   | 423                | 783        | *                | 344   | 1 611              |
| 35          | *                             | 82    | 484                | 688        | *                | 272   | 1 597              |
| 65          | *                             | 89    | 502                | 868        | *                | 275   | 1 757              |
| 65          | *                             | 90    | 570                | 861        | *                | 263   | 1 851              |
| 76          | *                             | 85    | 705                | 919        | *                | 240   | 2 071              |
| 62          | *                             | 69    | 634                | 614        | *                | 257   | 1 637              |
| 135         | *                             | 84    | 693                | 641        | *                | 274   | 1 646              |
| 162         | *                             | 130   | 936                | 549        | *                | 387   | 1 906              |
| 138         | *                             | 122   | 972                | 462        | *                | 433   | 1 872              |
| 55          | *                             | 183   | 963                | 301        | *                | 608   | 1 847              |
| 93          | *                             | 202   | 940                | 362        | *                | 691   | 2 025              |
| 55          | *                             | 252   | 1 058              | 509        | *                | 990   | 2 676              |
| 101         | *                             | 413   | 1 543              | 581        | *                | 1 374 | 3 513              |
| 69          | *                             | 384   | 1 248              | 635        | *                | 1 668 | 3 489              |
| 67          | *                             | 428   | 1 238              | 664        | *                | 1 871 | 3 646              |
| 108         | *                             | 1 005 | 2 082              | 552        | *                | 3 101 | 5 041              |
| 172         | *                             | 1 011 | 2 317              | 702        | *                | 2 952 | 5 130              |
| 218         | *                             | 956   | 2 304              | 944        | *                | 3 090 | 5 573              |
| 266         | *                             | 825   | 1 888              | 1 250      | *                | 3 177 | 5 780              |
| 310         | 354                           | 1 040 | 2 299              | 1 606      | *                | 3 895 | 7 541              |
| 318         | 857                           | 883   | 2 008              | 1 425      | *                | 3 056 | 6 871              |
| 317         | 221                           | 510   | 1 498              | 1 563      | *                | 2 411 | 5 581              |
| 335         | 68                            | 255   | 1 177              | 2 242      | *                | 1 091 | 4 702              |
| 407         | 126                           | 278   | 1 661              | 2 390      | 929              | 1 272 | 6 157              |
| 436         | 588                           | 238   | 2 175              | 2 779      | 1 838            | 1 932 | 8 463              |

**TABLE A-2 DEVELOPMENT AND EXPLORATORY WELLS**  
kilometres drilled annually, 1951-1985

|      | 1           | 2             | 3            | 4     | 5                  |
|------|-------------|---------------|--------------|-------|--------------------|
| Year | Development |               |              |       |                    |
|      | Successful  |               |              |       | Total <sup>a</sup> |
|      | Oil         | Crude Bitumen |              | Gas   |                    |
|      |             | Commercial    | Experimental |       |                    |
| 1951 | *           | **            | *            | *     | 1 001              |
| 1952 | *           | **            | *            | *     | 1 453              |
| 1953 | *           | **            | *            | *     | 1 394              |
| 1954 | *           | **            | *            | *     | 1 176              |
| 1955 | *           | **            | *            | *     | 1 972              |
| 1956 | *           | **            | *            | *     | 2 411              |
| 1957 | *           | **            | *            | *     | 1 553              |
| 1958 | *           | **            | *            | *     | 1 842              |
| 1959 | *           | **            | *            | *     | 1 969              |
| 1960 | *           | **            | *            | *     | 2 426              |
| 1961 | *           | **            | *            | *     | 2 385              |
| 1962 | *           | **            | *            | *     | 2 032              |
| 1963 | *           | **            | *            | *     | 2 266              |
| 1964 | *           | **            | *            | *     | 2 235              |
| 1965 | *           | **            | *            | *     | 2 142              |
| 1966 | 921         | **            | *            | 79    | 1 567              |
| 1967 | 748         | **            | *            | 219   | 1 420              |
| 1968 | 539         | **            | *            | 391   | 1 360              |
| 1969 | 464         | **            | *            | 408   | 1 254              |
| 1970 | 347         | **            | *            | 448   | 1 107              |
| 1971 | 352         | **            | *            | 406   | 1 219              |
| 1972 | 636         | **            | *            | 547   | 1 669              |
| 1973 | 692         | **            | *            | 800   | 2 204              |
| 1974 | 749         | **            | *            | 907   | 2 237              |
| 1975 | 714         | **            | *            | 1 159 | 2 340              |
| 1976 | 593         | **            | *            | 1 173 | 2 983              |
| 1977 | 720         | **            | *            | 1 624 | 2 961              |
| 1978 | 995         | **            | *            | 1 691 | 3 408              |
| 1979 | 1 452       | **            | *            | 1 936 | 4 141              |
| 1980 | 1 839       | **            | 80           | 2 557 | 5 309              |
| 1981 | 1 401       | **            | 85           | 1 934 | 4 169              |
| 1982 | 1 804       | **            | 103          | 1 521 | 4 116              |
| 1983 | 2 482       | **            | 112          | 896   | 4 248              |
| 1984 | 2 935       | 257           | 203          | 999   | 5 603              |
| 1985 | 3 302       | 579           | 155          | 1 443 | 7 353              |

<sup>a</sup> Includes unsuccessful, service, and suspended wells.

<sup>b</sup> Includes oil sands evaluation wells and exploratory wells licensed to obtain crude bitumen production.

<sup>c</sup> Discrepancies are due to rounding.

\* Not available.

\*\* Included in Oil.



| 6           | 7                             | 8     | 9                  | 10         | 11               | 12    | 13                 |
|-------------|-------------------------------|-------|--------------------|------------|------------------|-------|--------------------|
| Exploratory |                               |       |                    | Total      |                  |       |                    |
| Successful  |                               |       | Total <sup>a</sup> | Successful |                  |       | Total <sup>a</sup> |
| Oil         | Crude<br>Bitumen <sup>b</sup> | Gas   |                    | Oil        | Crude<br>Bitumen | Gas   |                    |
| *           | *                             | *     | 694                | *          | *                | *     | 1 696              |
| *           | *                             | *     | 568                | *          | *                | *     | 2 021              |
| *           | *                             | *     | 564                | *          | *                | *     | 1 958              |
| *           | *                             | *     | 554                | *          | *                | *     | 1 730              |
| *           | *                             | *     | 601                | *          | *                | *     | 2 574              |
| *           | *                             | *     | 665                | *          | *                | *     | 3 077              |
| *           | *                             | *     | 724                | *          | *                | *     | 2 278              |
| *           | *                             | *     | 712                | *          | *                | *     | 2 554              |
| *           | *                             | *     | 725                | *          | *                | *     | 2 694              |
| *           | *                             | *     | 737                | *          | *                | *     | 3 163              |
| *           | *                             | *     | 724                | *          | *                | *     | 3 109              |
| *           | *                             | *     | 744                | *          | *                | *     | 2 776              |
| *           | *                             | *     | 723                | *          | *                | *     | 2 989              |
| *           | *                             | *     | 917                | *          | *                | *     | 3 152              |
| *           | *                             | *     | 1 038              | *          | *                | *     | 3 180              |
| 95          | *                             | 4     | 958                | 1 016      | *                | 84    | 2 526              |
| 208         | *                             | 95    | 996                | 957        | *                | 314   | 2 416              |
| 244         | *                             | 198   | 1 386              | 783        | *                | 589   | 2 746              |
| 206         | *                             | 164   | 1 410              | 670        | *                | 572   | 2 667              |
| 83          | *                             | 208   | 1 295              | 431        | *                | 656   | 2 402              |
| 126         | *                             | 218   | 1 227              | 477        | *                | 624   | 2 446              |
| 83          | *                             | 280   | 1 402              | 719        | *                | 828   | 3 071              |
| 112         | *                             | 404   | 1 650              | 805        | *                | 1 204 | 3 854              |
| 92          | *                             | 410   | 1 419              | 841        | *                | 1 318 | 3 655              |
| 87          | *                             | 423   | 1 309              | 801        | *                | 1 582 | 3 649              |
| 139         | *                             | 846   | 1 892              | 732        | *                | 2 619 | 4 875              |
| 178         | *                             | 1 016 | 2 288              | 897        | *                | 2 640 | 5 250              |
| 300         | *                             | 1 219 | 2 178              | 1 295      | *                | 2 910 | 6 126              |
| 450         | *                             | 1 256 | 2 771              | 1 902      | *                | 3 192 | 6 912              |
| 494         | 71                            | 1 550 | 3 261              | 2 333      | 151              | 4 107 | 8 570              |
| 473         | 124                           | 1 202 | 2 810              | 1 874      | 209              | 3 136 | 6 979              |
| 493         | 27                            | 603   | 1 920              | 2 297      | 130              | 2 124 | 6 036              |
| 472         | 11                            | 338   | 1 528              | 2 954      | 123              | 1 234 | 5 776              |
| 511         | 19                            | 362   | 1 846              | 3 446      | 479              | 1 361 | 7 449              |
| 584         | 96                            | 300   | 1 975              | 3 886      | 829 <sup>c</sup> | 1 743 | 9 328              |

**TABLE A-3**

Table A-3 shows the growth in the number of oil and gas wells operated. It excludes wells formerly capable but now abandoned.

The capable-oil-well count includes a number of shut-in wells that are contained in approved production spacing units and enhanced-recovery schemes. Some pools have been substantially depleted since the production spacing units were established, and many of the wells included would now produce little or no oil if placed back on production. The capable-well count may therefore imply a greater capability than actually exists.

Although the capped wells shown in column 5 have not been completed, many could be capable of production on short notice. The main reason for capping is the limited market for gas but, in some cases, wells may be capped until gathering or processing facilities are completed or the economics of production and marketing improves.

**TABLE A-3 COMPLETED AND CAPPED WELLS**  
cumulative totals, 1951-1985

| Year | 1                    | 2        | 3                    | 4        | 5                      |
|------|----------------------|----------|----------------------|----------|------------------------|
|      | Oil Wells Completed  |          | Gas Wells Completed  |          | Capped<br>Gas<br>Wells |
|      | Capable <sup>a</sup> | Operated | Capable <sup>a</sup> | Operated |                        |
| 1951 | 2 731                | 2 510    | 331                  | 185      | 157                    |
| 1952 | 3 661                | 3 312    | 362                  | 245      | 259                    |
| 1953 | 4 504                | 4 000    | 404                  | 272      | 393                    |
| 1954 | 5 063                | 4 583    | 470                  | 314      | 491                    |
| 1955 | 6 135                | 5 509    | 489                  | 347      | 609                    |
| 1956 | 7 390                | 6 743    | 523                  | 368      | 713                    |
| 1957 | 8 016                | 7 136    | 585                  | 422      | 766                    |
| 1958 | 8 536                | 7 811    | 705                  | 575      | 871                    |
| 1959 | 9 217                | 8 281    | 830                  | 681      | 981                    |
| 1960 | 9 878                | 8 633    | 950                  | 758      | 1 127                  |
| 1961 | 10 529               | 8 938    | 1 088                | 894      | 1 314                  |
| 1962 | 10 809               | 9 183    | 1 257                | 995      | 1 388                  |
| 1963 | 11 437               | 9 217    | 1 437                | 1 213    | 1 466                  |
| 1964 | 12 114               | 9 613    | 1 628                | 1 372    | 1 497                  |
| 1965 | 12 771               | 8 736    | 1 800                | 1 502    | 1 515                  |
| 1966 | 13 162               | 8 886    | 1 921                | 1 527    | 1 586                  |
| 1967 | 13 473               | 9 116    | 2 065                | 1 647    | 1 666                  |
| 1968 | 13 733               | 9 114    | 2 356                | 1 924    | 1 594                  |
| 1969 | 13 897               | 9 381    | 2 692                | 2 194    | 1 601                  |
| 1970 | 13 971               | 9 383    | 3 010                | 2 490    | 1 684                  |
| 1971 | 14 065               | 9 467    | 3 426                | 2 830    | 1 801                  |
| 1972 | 14 168               | 9 689    | 3 985                | 3 318    | 2 063                  |
| 1973 | 14 368               | 10 028   | 4 536                | 3 769    | 2 551                  |
| 1974 | 14 819               | 10 395   | 5 344                | 4 508    | 3 469                  |
| 1975 | 15 177               | 10 708   | 6 670                | 5 704    | 3 935                  |
| 1976 | 15 663               | 11 166   | 9 010                | 7 753    | 4 864                  |
| 1977 | 16 224               | 11 592   | 12 529               | 10 806   | 6 023                  |
| 1978 | 16 871               | 12 151   | 14 897               | 12 785   | 6 686                  |
| 1979 | 17 673               | 12 805   | 17 173               | 14 760   | 8 268                  |
| 1980 | 18 833               | 13 312   | 19 546               | 16 661   | 10 094                 |
| 1981 | 20 072               | 14 243   | 22 611               | 18 797   | 11 593                 |
| 1982 | 21 345               | 15 259   | 25 400               | 20 611   | 10 991                 |
| 1983 | 23 182               | 16 694   | 27 125               | 21 881   | 10 835                 |
| 1984 | 25 320               | 18 406   | 29 037               | 22 839   | 10 793                 |
| 1985 | 27 830               | 19 957   | 30 255               | 24 424   | 10 957                 |

<sup>a</sup> Excludes wells used for injection.



**TABLE A-4**

Table A-4 supplements Table 8-1 and subdivides the annual additions to established reserves of conventional crude oil into new discovery, re-evaluation, and enhanced recovery categories. The method of subdividing the reserves has varied somewhat over the years; hence, some minor differences in annual additions may result from the change in method.

The established reserves attributed to new discoveries are subject to significant adjustment as the result of delineation drilling and performance in subsequent years. The trend in such adjustments has varied over the years. In the 1950s, adjustments were largely additions, whereas in the 1960s and 1970s, when pinnacle reefs were a popular exploratory target, many adjustments were negative.

The enhanced-recovery programs for crude oil pools lead to positive increments initially, but adjustments may be necessary later when performance proves that the reserves assigned have been over- or under-estimated.

**TABLE A-4 ADDITIONS TO ESTABLISHED RESERVES OF CONVENTIONAL CRUDE OIL**  
**1951-1985**  
**millions of cubic metres**

| <b>Year</b> | <b>1<br/>New Discoveries<br/>(Initial Year)</b> | <b>2<br/>Development and<br/>Re-evaluation</b> | <b>3<br/>Enhanced<br/>Recovery</b> | <b>4<br/>Total</b> |
|-------------|---|--|------------------------------------|--------------------|
| 1951        | 15.3  | 29.2   |                                    | 44.5               |
| 1952        | 14.0  | 48.5   |                                    | 62.5               |
| 1953        | 24.2  | 42.4   |                                    | 66.6               |
| 1954        | 1.9   | 53.7   |                                    | 55.6               |
| 1955        | 9.4   | 58.8   |                                    | 68.2               |
| 1956        | 3.5   | 78.5   |                                    | 82.0               |
| 1957        | 10.8  | 29.1   |                                    | 39.9               |
| 1958        | 1.3   | -4.8   | 4.9                                | 1.4                |
| 1959        | 14.3  | 37.2   | 16.0                               | 67.5               |
| 1960        | 0.5   | 29.9   | 18.1                               | 48.6               |
| 1961        | 1.7   | 31.5   | 24.5                               | 57.5               |
| 1962        | 2.9   | 21.8   | 19.9                               | 44.0               |
| 1963        | 14.6  | 12.6   | 29.2                               | 56.6               |
| 1964        | 9.5   | 88.2   | 250.8                              | 348.5              |
| 1965        | 28.6  | 42.6   | -2.4                               | 68.8               |
| 1966        | 89.1  | 13.5   | 38.3                               | 140.8              |
| 1967        | 57.2  | 15.7   | 22.2                               | 95.2               |
| 1968        | 62.0  | 14.8   | 42.9                               | 119.8              |
| 1969        | 40.5  | -44.5  | 58.5                               | 54.5               |
| 1970        | 8.4   | -7.6   | 36.1                               | 36.7               |
| 1971        | 14.0  | 8.7  | -0.8                               | 22.1               |
| 1972        | 10.8  | -5.6   | 14.8                               | 20.0               |
| 1973        | 5.1   | -6.0   | 10.2                               | 9.2                |
| 1974        | 4.3   | 3.3  | 30.8                               | 38.5               |
| 1975        | 1.6   | 2.1  | 3.3                                | 7.0                |
| 1976        | 2.5   | 5.9  | -27.0                              | -18.6              |
| 1977        | 4.8   | 5.1  | 9.2                                | 19.1               |
| 1978        | 24.9  | -1.9   | 1.4                                | 24.4               |
| 1979        | 19.2  | 10.3   | 4.8                                | 34.3               |
| 1980        | 9.0   | 5.1  | 8.6                                | 22.7               |
| 1981        | 15.0  | 7.2  | 10.4                               | 32.6               |
| 1982        | 16.8  | -16.5  | 6.6                                | 6.9                |
| 1983        | 21.4  | 24.8   | 17.9                               | 64.1               |
| 1984        | 29.1  | -12.0  | 24.1                               | 41.2               |
| 1985        | 32.7  | 11.2   | 20.2                               | 64.0 <sup>a</sup>  |

<sup>a</sup> Discrepancies are due to rounding.

**TABLE A-5**

Table A-5 shows annual changes to established marketable gas reserves. Reserves are continually reviewed and re-evaluated, principally on the basis of new data and performance.

For the years prior to 1978, the new discovery total includes only those reserves having initial established reserves of marketable gas equal to or greater than 300 million cubic metres.

Commencing in 1979 the new discoveries which are not booked in the year of discovery but in the following year are not accounted for under new discoveries. This effect may lead to a substantial understatement in the discoveries column and an overstatement in the development column. Occasionally, the reverse might be true where established reserves classified as new discoveries in a given year later prove to be extensions of earlier discoveries and the pools are coalesced.

In view of the above, the distribution of reserves between new discoveries and development should be used with caution.



**TABLE A-5 ADDITIONS TO ESTABLISHED RESERVES OF MARKETABLE GAS**  
**1951-1985**  
**billions of cubic metres**

| Year | 1<br>New Discoveries<br>(Initial Year) | 2<br>Development and<br>Re-evaluation | 3<br>Total        |
|------|--|---------------------------------------|-------------------|
| 1951 | 6.2                                    | 55.0                                  | 61.2              |
| 1952 | *                                      | *                                     | 87.8              |
| 1953 | *                                      | *                                     | 76.1              |
| 1954 | *                                      | *                                     | 58.8              |
| 1955 | *                                      | *                                     | 59.3              |
| 1956 | *                                      | *                                     | 64.5              |
| 1957 | *                                      | *                                     | 64.9              |
| 1958 | *                                      | *                                     | 110.4             |
| 1959 | *                                      | *                                     | 88.5              |
| 1960 | 18.2                                   | 101.7                                 | 119.9             |
| 1961 | 9.6                                    | 3.7                                   | 13.3              |
| 1962 | 8.7                                    | 41.0                                  | 49.7              |
| 1963 | 3.1                                    | 32.7                                  | 35.8              |
| 1964 | 7.2                                    | 78.7                                  | 85.9              |
| 1965 | 11.3                                   | 78.4                                  | 89.7              |
| 1966 | 2.1                                    | 38.6                                  | 40.7              |
| 1967 | 24.3                                   | 49.6                                  | 73.9              |
| 1968 | 15.3                                   | 119.3                                 | 134.6             |
| 1969 | 18.6                                   | 68.9                                  | 87.5              |
| 1970 | 7.6                                    | 38.7                                  | 46.2              |
| 1971 | 4.8                                    | 40.6                                  | 45.4              |
| 1972 | 12.5                                   | 32.8                                  | 45.2              |
| 1973 | 7.8                                    | 175.6                                 | 183.4             |
| 1974 | 8.6                                    | 138.4                                 | 147.0             |
| 1975 | 0.8                                    | 20.0                                  | 20.8              |
| 1976 | 6.9                                    | 98.7                                  | 105.6             |
| 1977 | 6.6                                    | 120.9                                 | 127.6             |
| 1978 | 24.4                                   | 138.9                                 | 163.3             |
| 1979 | 16.4                                   | 106.8                                 | 123.2             |
| 1980 | 30.0                                   | 62.5                                  | 92.4 <sup>a</sup> |
| 1981 | 28.9                                   | 88.1                                  | 117.0             |
| 1982 | 10.6                                   | 108.1                                 | 118.7             |
| 1983 | 16.3                                   | 22.7                                  | 39.0              |
| 1984 | 9.6                                    | 30.9                                  | 40.5              |
| 1985 | 11.5                                   | 31.1                                  | 42.6              |

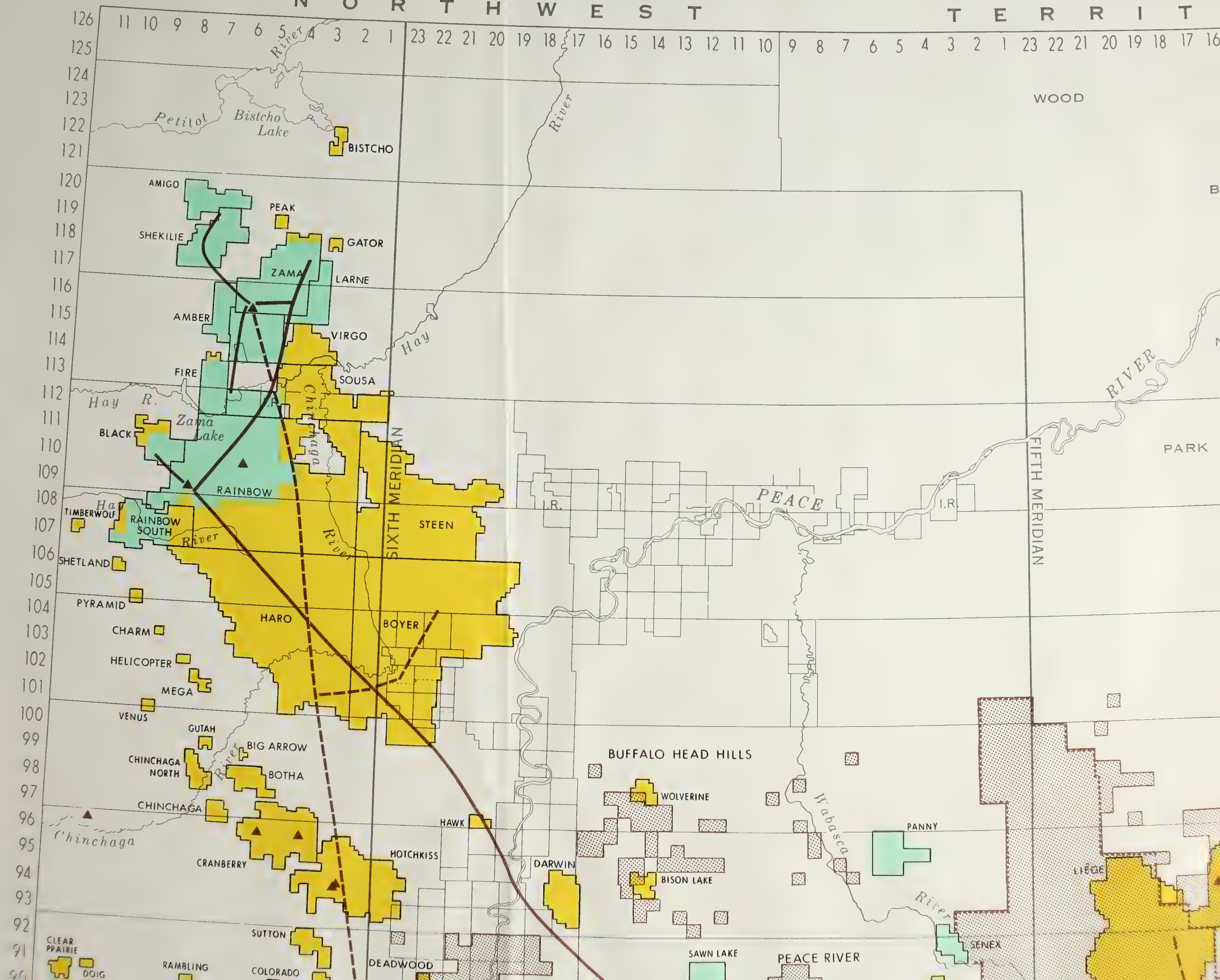
<sup>a</sup> Discrepancies are due to rounding.

\* Not available.

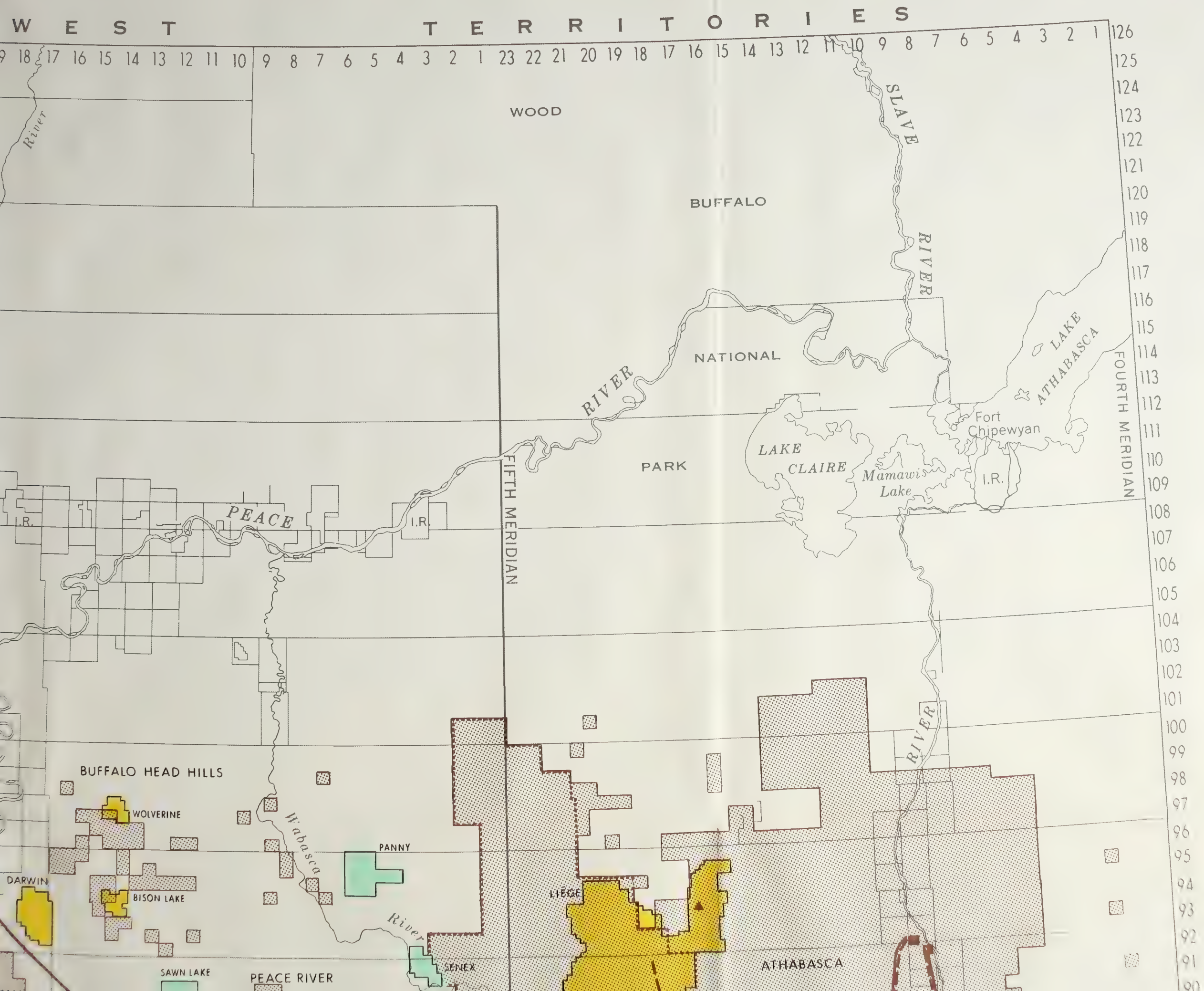
C O L U M B I A

N O R T H W E S T

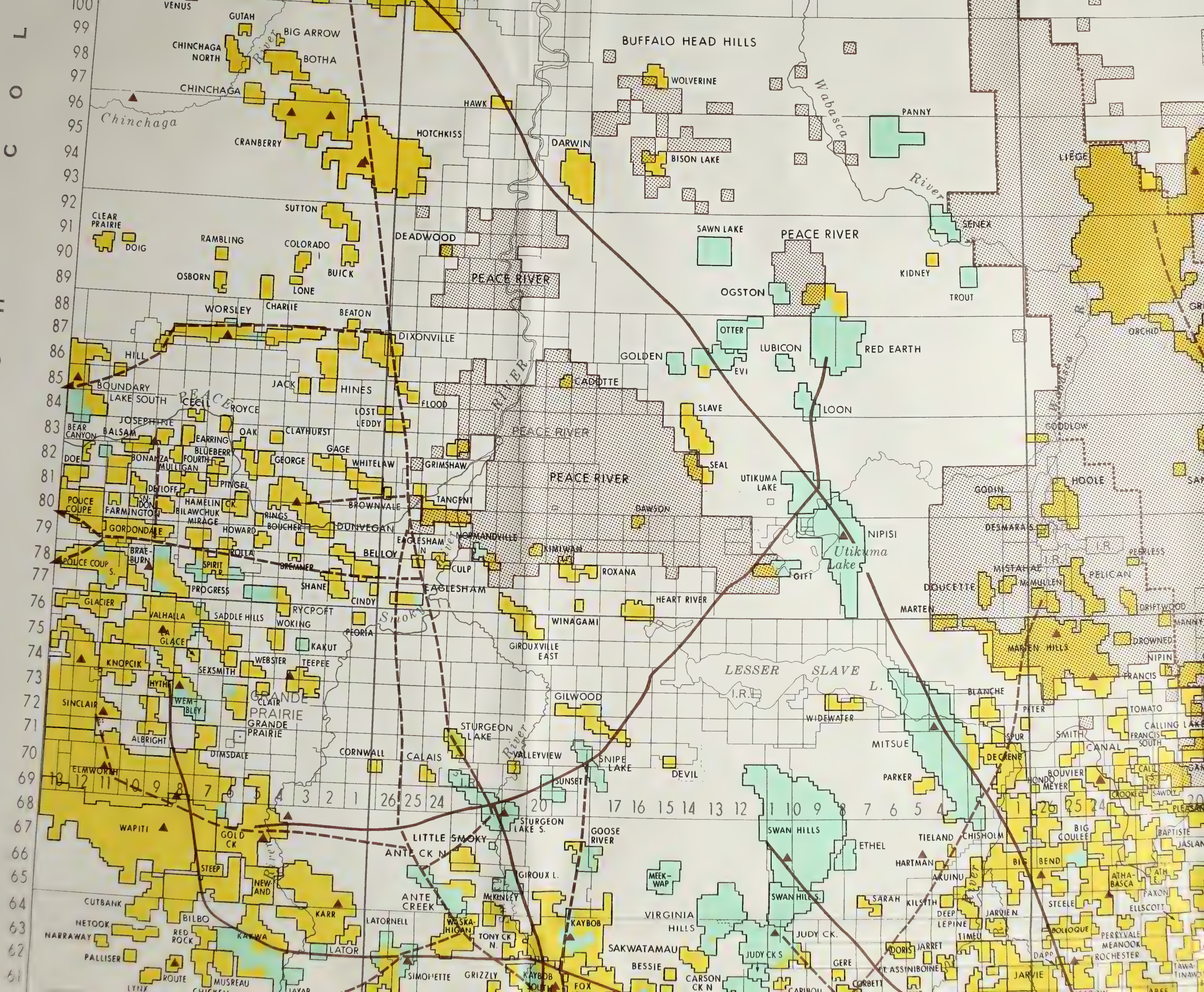
T E R R I T



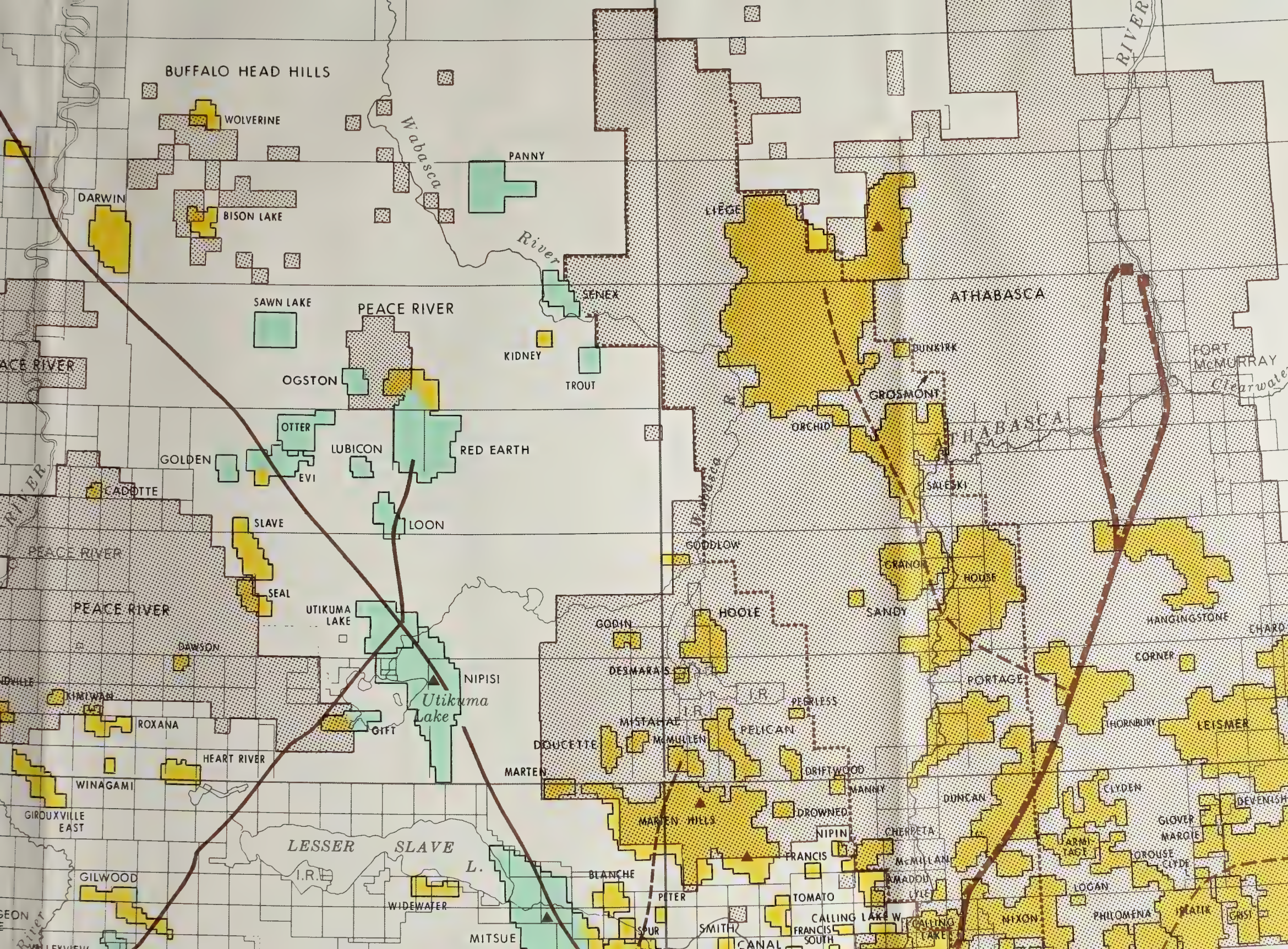




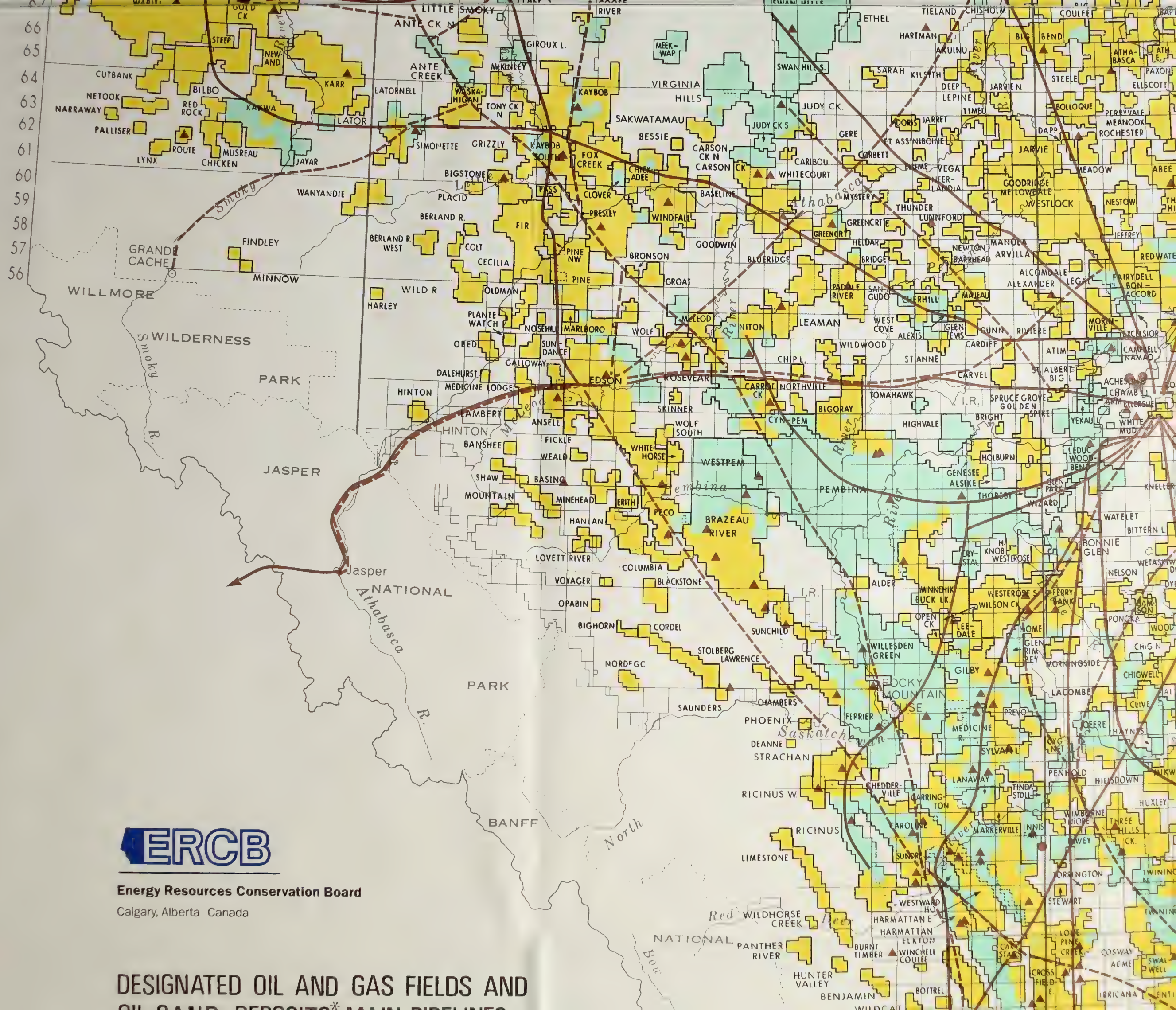








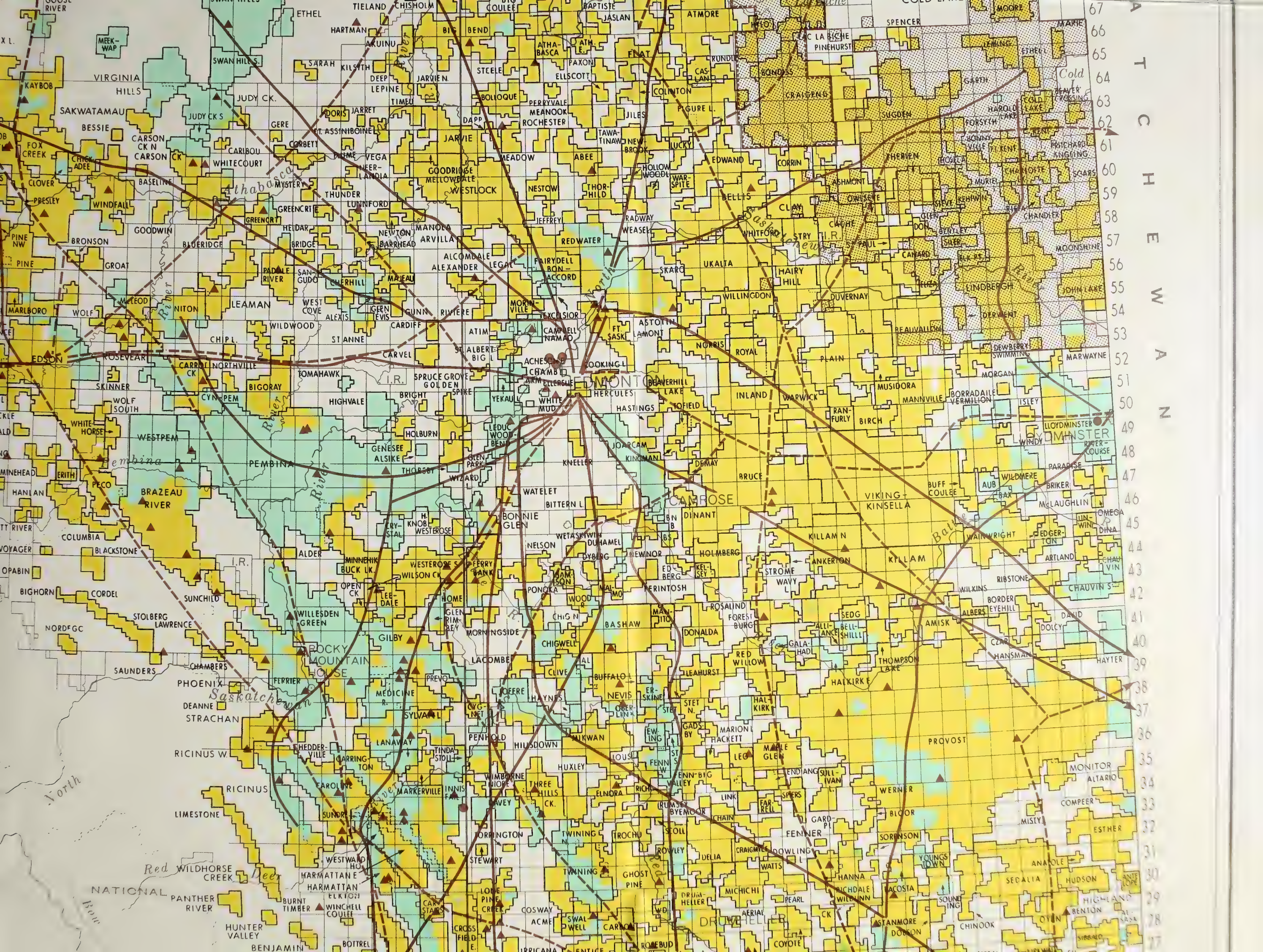




Energy Resources Conservation Board  
Calgary, Alberta Canada

DESIGNATED OIL AND GAS FIELDS AND  
OIL SAND DEPOSITS\* MAIN PIPELINES





T  
C  
H  
E  
W  
A  
N

67  
66  
65  
64  
63  
62  
61  
60  
59  
58  
57  
56  
55  
54  
53  
52  
51  
50  
49  
48  
47  
46  
45  
44  
43  
42  
41  
40  
39  
38  
37  
36  
35  
34  
33  
32  
31  
30  
29  
28  
27





Energy Resources Conservation Board

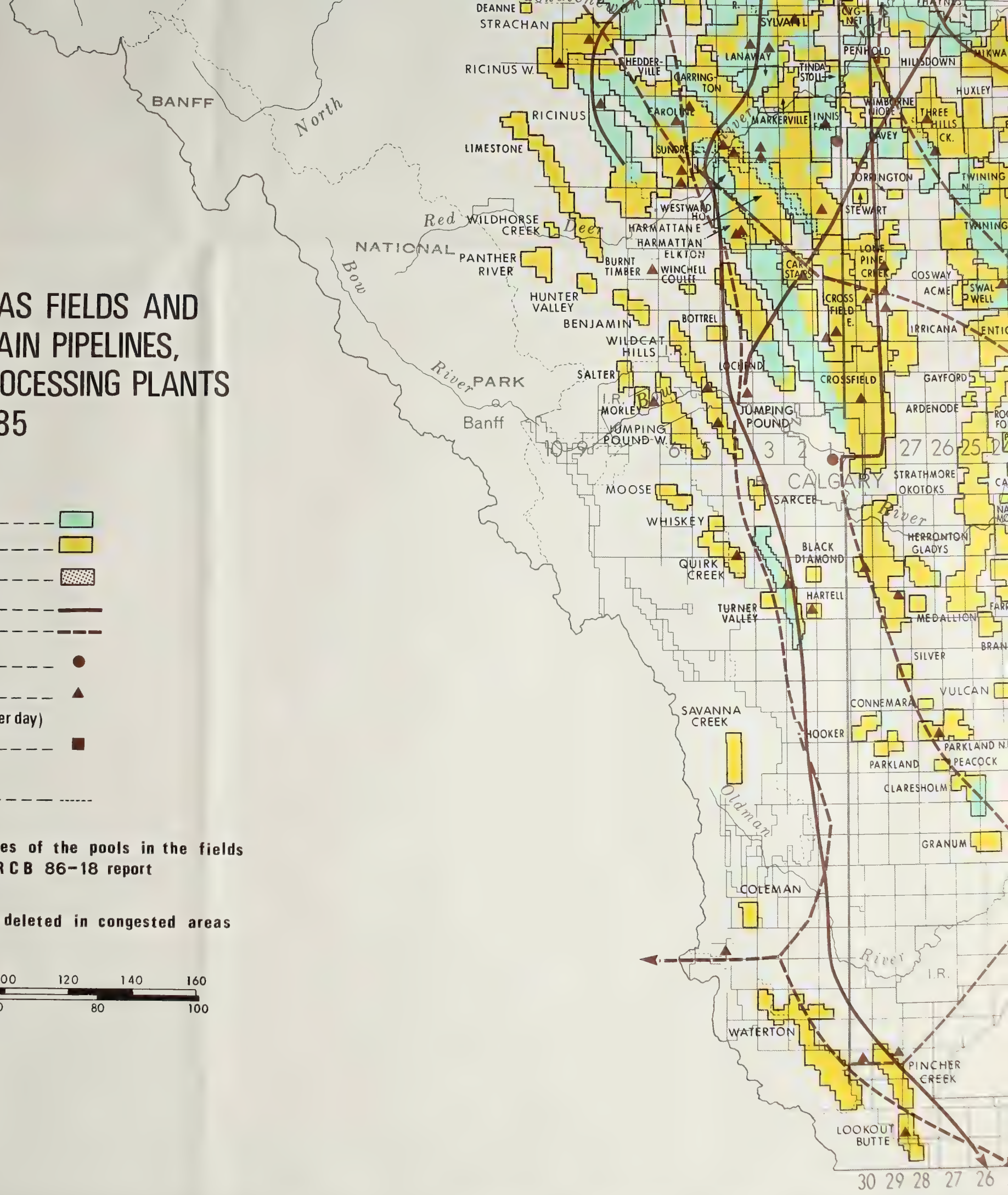
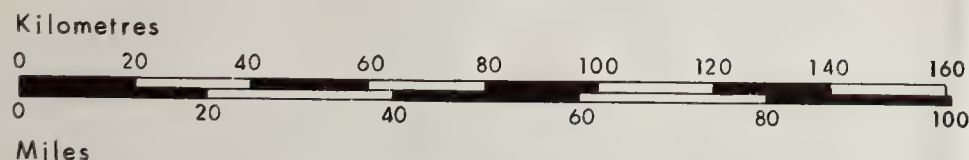
Calgary, Alberta Canada

# DESIGNATED OIL AND GAS FIELDS AND OIL SAND DEPOSITS\*, MAIN PIPELINES, REFINERIES AND GAS PROCESSING PLANTS AS AT 31 DECEMBER 1985 ALBERTA, CANADA

- Field - mainly oil - - - - -
- mainly gas - - - - -
- Deposit - oil sands - - - - -
- Pipeline - oil - - - - -
- gas - - - - -
- Oil refinery - - - - -
- Gas processing plant - - - - -  
(capacity in excess of 0.5 million cubic metres per day)
- Oil sands processing plant - - - - -
- Boundaries of national parks  
and forestry reserves - - - - -

\*The Board's estimates of the reserves of the pools in the fields and deposits are published in the ERCB 86-18 report

Note: Certain information has been deleted in congested areas







the fields  
l areas







